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ORGAN TRANSPLANTATION AND DEATH ... P. M. Bakshi
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EDITORIAL NOTE

The Banaras Law School is known for its innovations in the field of legal education. It was the first Law Faculty in India to introduce in its curriculum a course on 'Law and Medicine'. The Law academics did not pay much attention to this branch of law. On the other hand, the recent advances made in the field of medicine and bio-medico-technology have raised many vital questions of legal and ethical nature for which the law has no answer at all or has no satisfactory solutions. The plathora of new innovations have made it imperative for the legal community to define and redefine many traditional and even modern concepts.

In order to celebrate the Platinum Jubilee year of the Banaras Law School, a three days National Seminar was organised on 'Law and Medicine' from February 8th to 10th, 1991, which was attended by the scholars from multi-disciplines and, in particular, the Indian and Modern Medicines. In continuance of this celebration, the Banaras Law Journal devotes the present volume as a special issue on 'Law and Medicine' containing some of the papers presented in the Seminar.

The core areas for deliberations were divided under the following four rubrics :

1. LEGAL ASPECTS OF NEW MEANS OF REPRODUCTIVE TECHNOLOGIES, SURROGATE PARENTHOOD AND SEX ALTERATION

Today the family laws and family welfare laws stand at a cross road where the new reproductive technologies such as artificial insemination by husband (AIH), artificial insemination by donor (AID), *in vitro* fertilization (IVF), embryo transfers and surrogate motherhood have brought new challenges before the existing legal system. These innovations have given rise to complex questions which include : Is the child born as a result of AID an illegitimate child ? What should be the parental rights and duties of mother and husband when the parental status, in principle, remains with the donor ? What should be the legal response where a husband's problem is sub-fertility rather than total infertility and husband's sperm is mixed with that of the donor ? How far can a doctor be held liable for an abnormal child resulted from AID some of these facts might constitute adultery or extreme cruelty, the grounds for divorce in case artificial insemination is done without the husband's consent.

Still unanswered is the main question : When does life begin ? The existing law has yet to give any satisfactory answer, but it has given rise to a number of other questions : What are the rights of an unborn gestated *in vitro* ? How can the consent of a foetus be obtained for the purpose of surgical operation *in utero* ? Should the foetus be protected in all its rights in the same manner as a child after birth ? Should there be a criminal liability in case of destruction of the laboratory grown embryo ? Fortunately in the United Kingdom, it may be possible that children born with a disability as a result of negligence in the process of test tube baby will be able to bring action for damages against doctors and other staff responsible for their handicap. An amendment to the embryo bill, pending in the House of Commons, extends protection under the Congenital Disabilities (Civil Liability) Act, 1976 to children conceived through *in vitro* fertilization or artificial insemination. Can India learn any lesson from the experience of the United Kingdom ? Is not the time ripe for such an exercise in India ?

Although the tests performed on the developing embryo or foetus, as for example in case of amniocentesis method a sample of the amniotic fluid surrounding an unborn child is investigated in order to find out if the cells given off by the foetus indicate genetic disorders, the prospective parents are able to ascertain whether or not their off-spring will be abnormal. To such cases abortion is readily available. But the pity is that in India, amniocentesis is used for sex determination of an unborn child. Researches are conducted to develop the polio vaccine from the human foetal tissues. These tissues are sold in the cosmetic market. It may be pointed out that any unlicensed use of an *in vitro* embryo in itself constitutes not only a criminal offence but also civil wrong. The question arises : Should there be a ban on embryo research and on embryo creation other than with a view to implantation ?

It is difficult to deny the life-giving contribution of the gestational or carrying mother. In partial surrogacy, an egg retrieved from the intended mother is fertilized with her husband's sperm but implanted in the surrogate for gestation. In full surrogacy, the surrogate's own egg is fertilized by artificial insemination with a view to hand over the resulting child to the father and his wife, and adopted by them.

Though there are few cases of transsexualism or sex alterations, the law has yet to give a correct direction to the society. It will bring new challenges before the family law, gender justice and other basic legal concepts. Before it is too late, the law academics must give the directions to the Legislature to redefine the existing laws to suit the scientific inventions.

The issues for the deliberations were :

- (a) Legal dilemma posed by amniocentesis;
- (b) Legal aspect of artificial insemination;
- (c) Socio-legal aspects of *in vitro* fertilization;
- (d) Surrogate parenthood;
- (e) Sex alteration.

2. LEGAL ASPECTS OF GENETIC ENGINEERING, CLONING AND ORGAN TRANSPLANTION :

Technological advancements in biology and medicine have taken place with an unforeseen speed. There is a need to have a fundamental approach towards the entire legal framework and a considered policy response to the various issues raised by advances in bio-medico-technology.

The technological innovations of genetic control, including *eugenics* (the study and control of various possible influences as a means of improving the hereditary characteristic of a race), *euphenics* (the treatment of genetic maladjustments on the individual during his life time), and *genetic engineering* (the change of undesirable genes by directed mutation), have given new life to the human personality and hereditary characteristics. These techniques have allowed men to slowly control the nature and have raised complex directions before the lawmen. The criminal law may have to respond to the role of the commission of crime and other discoveries. Civil liability will have different dimensions in case of defective gene. The time has come when we have to answer questions : What are the challenges before the law of crimes and law of torts; and what reforms are necessary so that the law is able to adapt with the advances in the medico-technology ?

The day is not far away when the entire organism may be recreated from one or more such cells and a replica of a particular man may be possible through the process of cloning. The above developments raise the questions : Will the law allow the destruction of a clone copy ? Will they be regarded as children of the parent or treated as the same persons as the parent ? How is the law going to solve the problem of identity of men ?

Besides this, 'spare-part surgery' has been gaining popularity in the modern time. The transplantations of heart, lung, kidney, liver and many more organs have brought to the fore the medical, ethical, social and moral issues. Organs or self-generating tissues (such as bone marrow)

or double organs which are not self-regenerating (such as kidneys) may be taken out from the body of a person for its transplantation in the others body. In any case, organs or tissues may not be taken if this puts the donor's health at risk. Today one hears of commercialisation of spare parts. This is the result of few voluntary donors. The law must respond to such nefarious activities.

A transplantation may be of the organ of a living person, a person on the verge of death or died very shortly. A twin is the best living donor. Then comes the near relatives like father, mother, brother, sister, son or daughter. The unrelated persons are considered the third donors. The tragedy is that in most of the cases it is the unrelated donors who are readily available. Since the cases of organ transplant from close relatives are very few, and the cadaver donor programme has yet to be stepped up, the surgeons and patients have no choice but to depend on the human organs market. In this market, the poor are exploited to sell their organs for the rich people with least legal control on such exploitative activities. Is not the time ripe for a comprehensive law to regulate the human organs market? And what shall be the shape of such a law, are some of the many questions which require detailed deliberations.

Laws in many states in India have permitted organ removal from cadavers, but this programme has yet to get a firm ground in the Indian soil. It is difficult to get cadavers for this purpose and also their organs to be collected within a desired period of time after their death. In the western countries, cadaver donors are common. Most of them are trauma victims with sever brain injury. Can we not suggest means to step up the cadaver donor programme and also to make the programme more effective?

When we talk of death, it becomes necessary to know when does death occur. In many countries, the definition of 'death' has shifted to 'brain stem' death, while in India it is the cessation of heart beat and stopping of respiration. Such a definition will make it difficult to obtain donated organs in a good condition. This raises a number of questions: Should the definition of 'death' be altered? How long the death may be prolonged? Is it reasonable to prolong death? Who shall give the final verdict about the death?

The above issues were categorised under the following heads for the consideration:

- (a) Legal and ethical aspects of genetic engineering;
- (b) Legal and ethical aspects of cloning;

(c) Implications of new technologies (eugenics, euphenics, and manipulation of genetic DNA);

(d) Legal control of organ transplantation.

3. LEGAL REGULATION OF THERAPEUTIC AND NON-THERAPEUTIC EXPERIMENTS :

In the medical science researches are conducted on the body of human being. The researchers are concerned with the scientific problem, mode of action of the drug, effect of the procedure under study and the welfare of the human being. The principle of medical morality prohibits experiments which might be harmful to man, even though the result might be highly advantageous to the science and society. Doctors, who test hypothesis through experiments, follow the Hippocratic tenet that they shall do no harm. No specific guidelines are ensured to protect the human body from unnecessary experimentation. However, a distinction is made between biomedical experiments which are not specifically therapeutic and experiments with precise therapeutic aims. In the *therapeutic experiments*, the doctor uses an untried or novel method of treatments on patient because no accepted treatment exists and that the experiment will be more beneficial to his patient. On the contrary, a *non-therapeutic experiment* is not intended for benefit of the subject, but the community's interests prevail and the experiment is conducted on volunteer human subjects for the purpose of pure medical research solely in the pursuit of new knowledge. The human brain tissues are subject of research so as to produce cyborgs (a hybrid between man and machine). Scientists in the field of gerontology are trying to explore the possibility of delaying the ageing process. The success, if any, of these researches will pose unprecedented problems for the lawmen. Further, there are researches in the field of Indian medicine or Ayurved and modern medicine. Today more and more research projects are undertaken in the Indian medicine inside and outside India for the medical welfare of the community. The Indian medicines have been giving good results with little side effects and that too at a low cost. Should the government of India not encourage such researches? One of the main component of the research is the consent of the person on whose body an experiment is proposed. He must be informed about the experiment so that he may give or withdraw his consent at any time. In these experiments a conflict often arises between the rights of the individual and the good of the society. The medical experimentations raise not only ethical, moral, legal and political questions, but also the issues relating to human, social, judicial and economic consequences of such experiments.

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Though experiment on human beings may be vital to the progress of medical science, abuses have taken place and will continue so long as standards and safeguards are insufficiently articulated. Unless legal regulation is provided, there can be no acceptable fact situation to which measures of legal propriety or justification may be applied. It appears, therefore, that the greatest need of the day is for a legal regulation of therapeutic and non-therapeutic experimentation. This in turn will raise questions: Is it possible to determine some standard and safeguards that will permit medical experiment on the one hand and protect the safety, privacy and dignity of experimental human beings on the other? Can the law not prescribe such standards? What principles should a doctor observe to ensure the legal, ethical as well as experimental soundness of his efforts? Can the experimental medicine be possible in the best interest of both the individual and the society? How and within what bounds it may be undertaken? What are the legitimate areas of the human experimentation? When should the court accept the medical research as a valid experimentation? What is the scope of the criminal, tortious and contractual liabilities in the present case?

On the basis of the above questions, the following six broad areas emerged for consideration :

- (a) Legal regulation of therapeutic experiment on human beings;
- (b) Legal regulation of non-therapeutic experiment on human beings;
- (c) Ethics governing the services of human being in medical experiment;
- (d) Concept of informed consent in medical experimentation;
- (e) The problem of experimentation on human beings : the medical scientist's point of view;
- (f) The problems of criminal, tortious and contractual liabilities in case of the physician-patient relationship

4. LAW AND MEDICAL NEGLIGENCE

Medical negligence may be defined as want of reasonable degree of care and skill of a medical practitioner in the treatment of his patient. Law presumes that a doctor will use reasonable degree of care, skill and knowledge in the treatment of his patient to the best of his judgment. A legal action may be taken against a doctor if there was a breach of duty of care, resulting in injury to the person concerned. His negligent act may attract civil and criminal liabilities. When we talk of medical

negligence it is not the doctor alone who is involved. The para-medical staff, the superintendents, the manager and the medicare institution may be held liable for negligence. This will attract not only individual but also groups and institutional responsibility. Compensation for institution as liability will be more in view of paying capacity than an individual doctor. Then comes the application of the doctrine of *res ipsa loquitur* (the thing speaks of itself) which has been a subject of diverse opinions. Can it be allowed to operate in such a delicate relationship between the doctor and his patient? Though the law relating to medical profession has yet to evolve detailed guidelines, the judiciary at times has exposed the doctor of his gross negligence, carelessness and ignorance and gave directions for the future legislation on the doctor's negligence. Lately the High Courts and the Supreme Court of India have handed down important judgments in the area of the doctor's negligence. This attracts discussion on the questions : What has been the output of these rulings? Have they subserve the medicare best? What are the areas which will attract civil and criminal liabilities?

There are cases where the Consumer Protection Act has been pressed in to deal with the doctor's negligence. The doctor's community has strongly resented against such a move. Even they have threatened not to render medical services till the doctor's services are kept out of the purview of the consumer forum. These developments have left the doctors to think twice before handling serious cases. Where will the patients with serious cases go? Who will protect the innocent doctors? Will the higher risk not demand an expensive medical service? Can the poor country like India afford the luxury of the expensive treatment? Should not the government come forward with a comprehensive insurance scheme, if public health has to be adequately protected?

The areas for deliberation on the law of medical negligence were :

- (a) Areas of Medical Negligence;
- (b) *Res ipsa loquitur* in Medical Negligence;
- (c) Civil and Criminal Liabilities;
- (d) Legislative and Judicial Approaches.

LEGAL ASPECT OF GENETIC ENGINEERING, CLONING, ORGAN TRANSPLANTATION AND DEATH

P. M. BAKSHI*

This paper deals with the legal aspects of genetic engineering and organ transplantation. A refinement of genetic engineering, known as cloning, will also be touched. It is further proposed to devote some space to the definition of death, being a topic vitally connected with the transplantation of organs.

Genetic engineering

Genetic engineering is a high-sounding word. But, basically, it denotes the artificial creation or management of human genetic material, to achieve a certain purpose. Such creation or management of genetic material may be preceded by certain preliminaries—such as, genetic detection and screening—and it may be followed by certain other procedures. But the essential process consists in some artificial interference with the genetic material.

Joseph Fletcher,¹ Visiting Professor of medical ethics at the Virginia University Medical School, has thus formulated the ethical question in genetic engineering :

The ethical question, then, is whether we can justly design genetic changes in man, for the sake of both therapeutic and non-therapeutic benefit... Eugenic changes can be negative as well as positive. Negative or operative eugenics is intended to obviate gross chromosomal disorders. Positive or constructive eugenics modulates the genetic constitution of an individual for a specific purpose. Like all other problems in ethics, the morality of genetic engineering comes down to the question of ends and means,

Positive developments

Leon Kass, Professor of the Liberal Arts of Human Biology at the College, University of Chicago, has projected at least the following developments in future :

* Member, Law Commission of India. Director, the Indian Law Institute, New Delhi

1. Joseph Fletcher, "Ethical Aspects of Genetic Controls", in Arras and Hunt (Ed.), *Ethical Issues in Modern Medicine*, 1983, 401-436,

- (1) The growth of human embryos in the laboratory will be extended beyond the blastocyst stage.
- (2) Experiments will be undertaken to alter the cellular and genetic composition of these embryos, at first without subsequent transfer to a woman for gestation, subsequently perhaps as a prelude to reproductive efforts. "The techniques of DNA recombination, coupled with the new skills of handling embryos, make prospects for some genetic manipulation much nearer than anyone would have guessed ten years ago.
- (3) Storage and banking of living human embryos (and ova) will be undertaken, perhaps commercially.

Numerous socio-ethical questions arise, such as—

- (a) possible control over human heredity and reproduction;
- (b) wisdom required to engage in such practices;
- (c) goals that will be guiding our investigations and experiences;
- (d) question about changes in the concepts of being "human", including parenthood, sexuality, lineage, identity and love; and,
- (e) questions whether the present generation has power over future generations.

Legal principles

These are questions of ethics. What are the legal principles applicable? Of course, many of these situations have not yet entered the legal scenario. But certain principles which are already operative, may well furnish a guide. For, as has been pointed out by Robert M. Veatch², Professor of Medical Ethics at the Kennedy Institute of Ethics, Georgetown University, it is only by understanding the principles on which specific rules and individual decisions are based, that real ethical insight will be gained. "Thus, the most sophisticated work in medical ethics consciously incorporates those principles and moves early from principles to cases and back again."

Now, in law, at least three principles are well established. The first is, that you shall not harm another person knowingly, without lawful justification or excuse. The second is, that bodily harm may be excused, if inflicted with the consent of a person competent to consent, provided it is an informed consent. The third is, that an activity likely to cause harm (even if undertaken with consent) has to be carried out with reasonable care and skill.

2. Robert M. Veatch, "Foreword", in Arras and Hunt (Ed.), *Ethical Issues in Modern Medicine*, 1983.

Of course, ethical and legal issues are usually complex. In the sequence of progression from aspirin to insulin to artificial kidneys to brain surgery to genetic engineering, there is no point at which we can "change from a clear yes to an absolute no." There is always more than one choice. Where there is no choice, there is no possibility of ethical discussion. Compulsion makes our conduct "a-moral". It is the availability of more than one option that necessitates the invocation of ethics and the intervention of law.

Genetic screening and its ambit

Genetic engineering is a term with a wide spectrum. It can cover a variety of activities such as genetic screening, genetic manipulation and so on.

"Genetic screening" is itself a wide term. It has been described³ as "an umbrella term covering a heterogeneous collection of diagnostic procedures aimed at abnormalities known to be in some fashion inherited. In the minds of both professionals and public, it refers to conditions of relatively simple and straightforward inheritance such as single gene disorders or abnormalities of chromosome number.

New born "Metabole screening" is commonly done to check for PKU phenylketonuria which (unless treated with synthetic food) may cause irreversible mental retardation. It may sometimes give false positive test.

"Career screening" is done to find out diseases such as Tay Sachs disease (which may cause blindness). This is pre-natal and if discovered, justifies abortion. More commonly, it is employed for "sickle-cell anaemia". This is done before birth.

Legal issues

Issues-ethical and legal in genetic engineering are the same as those in other medical procedures though (a) the scale is large and (b) the field is vast, because of the vast explorations of our gene types.

(i) Requirements of legal consent apply to genetic screening. When the screening programme is experimental, that fact should be communicated. The tissue samples taken should be used only for the tests specified in the consent form and then disposed of (unless the consent form permits further use). The nature of available treatment and the extent of follow up should also be clearly specified.

3. Tahitha M. Powledge, "Genetic Screening", in Warren T. Reich (Ed.) *Encyclopedia of Bio-ethics*, 1978, Vol. 2, 567-573; See generally, Edmand Sease "Patentability of New Life Forms", (1988) 38 *Drake Law Rev*, 551-57.

(ii) Confidentiality should be observed,⁴ and attention should specially be devoted to a consideration of who should have the access to geno type information of an individual. Insurance companies may want it if they can get it, but it cannot be disclosed without the subject's consent.

In some States of the United States (Maryland, New York), where there is a Statewise repository for many kinds of genetic information, there is a specific protection.⁵

Amniocentesis

Another area of genetic screening is pre-natal diagnosis applied in high-risk pregnancies, such as those where (a) the mother has already given birth to an affected child or (b) the mother is in advanced maternal age. Amniocentesis, in which the fluid from the womb is withdrawn by hypodermic device and examined, has often been employed. It is particularly favoured for detecting Down's syndrome (mongolism). This abnormality of Chromosome number is the single most important cause of severe mental retardation and can be diagnosed early by amniocentesis. In some major medical centres in the West, an early amniotic tap on women over 35 is routine.⁶

Finally, there is "susceptibility screening"—searching for a condition that is at least in part genetically determined and is not in itself a disease, but has the potential for causing lethal damage at some point in the future.⁷

Sex determination

Paul Ramsey (then teaching in the Department of Religion at Princeton) wrote in 1973: "Women are not admitted merely at their request, for example, to determine the sex of a child to abort the wrong gendered one." However, this is no longer true. In India (and, to some extent, elsewhere), women have been increasingly admitted to amniocentesis for sex determination. Two types of parents⁸ request sex determination by amniocentesis—(a) those who are concerned about the risk of transmitting a sex linked hereditary disorder, (b) those who want to

4. Cf. *X v. Y.*, (1988) 2 *All E.R.* 648

5. Institute of Society, Ethics and the Science, "Ethical and Social Issues in Screening for Genetic Disease", (1972) 286 *New Eng. Journ. Med.* 1129-1132.

6. Powledge, *Supra* note 3.

7. David L. Sackell, "Screening for Disease Cardiovascular Disease", (1974) 2 *Lancet* 1189-1191.

8. John C. Fletcher, "Ethics and Amniocentesis for Foetal Sex Identification" (6 Sep 1979), 301 *NEJM* 530-550.

select the gender of their next child. The first situation generally does not raise serious ethical issues. The second has, however, turned out to be controversial. There has been objection mainly to the use of abortion following the determination of sex by amniocentesis. In the West, an objection is also raised because resources for amniocentesis are scarce. Fletcher (revising his earlier view) has put the point lucidly—on the assumption, of course, that liberal abortion is permitted by the law (as in the U.S.).

Respect for persons requires that a woman's autonomy and personal responsibility (should) be the standards that govern the final resolution of conflicts about reproduction and abortion. Abortion for sex choice is legal and if we are to act in accordance with the principles that should now inform decision making on abortion, all forms of tests should be removed.... My major argument is that it is inconsistent to support an abortion law that protects the absolute right of women to decide and, at the same time, to block access to information about the foetus because one thinks that an abortion may be foolishly sought on the basis of the information.⁹

Cloning

Cloning ranks as one of the most significant accomplishments involving recombinant DNA. Recombinant DNA literally means the joining or re-combining of two pieces of DNA from two different species. The technique allows an investigator to biologically purify (clone) a gene from one species, by inserting it into the DNA of another species, where it is replicated along with the host DNA. Actually, the term includes a variety of processes. Such cloning ranks as one of the most significant accomplishments and has enabled researchers to use *E. Coli* to produce virtually limitless copies of donor genes from other organisms, including human beings.

The popular press has labelled the research concerning genetic system of a variety of organisms and their manipulation as "genetic engineering" and has implied that it is necessarily dangerous and immoral. Of course, selective breeding of desirable species in plants and animals has been practised since ancient times. But the deliberate laboratory manipulation of the cellular or nucleic acid constitution of an organism, so as to produce a specific genetic change that will persist as the cells

9. Joseph Fletcher, "Pre-natal diagnosis for sex selection", (1979) 301 *New Eng Journal of Med* 550-553.

multiply, has caused people to consider various ethical issues raised by the production of new forms of life. The United States Supreme Court has held¹⁰ that the production of a new bacterium with a different characteristic from any (characteristic) found in nature can be patented by the scientist who makes it. Some refer to genetic engineering as "playing God" which may diminish the mystery of life. Others regard this technique as an example of human efforts to understand life, and not as affecting its mystery. It may be that in future, it may be possible to "clone" humans to genetic specifications and from that point of view research on human embryos may have to be regulated in the distant future.

However, one should not rush to the conclusion that all genetic research is bad. Genetic counselling, for example, helps people in making responsible and individual decisions concerning reproduction. It makes them understand the options available and facilitates the early diagnosis and management of genetic disorders. Where the persons consulting are known carriers of diseases that are due to single genes, the calculation of risk is straightforward. Again, gene probes have become available for the rapid diagnosis of some infectious diseases, such as Hepatitis B, Influenza and Herpes Simplex. In fact, it is genetics that has helped transplantation, because the increased understanding of immune organisms involved in organ rejection has greatly increased the ability to transplant tissues and organs.¹¹

It is also doubtful whether new genetic knowledge will do much to change the pattern of human evolution. Such an evolution depends on a host of environmental factors. Characteristics such as intelligence and the emotions are determined by many factors, being the result of multiple gene and environmental inter-action and may not be susceptible in the near future to genetic manipulation. The ability to clone humans has been wrongly apprehended, according to many scholars. The outside world cannot be cloned, whether it is physical or social.

Transplantation of organs

The central problems in transplantation of organs are the same as those in other areas of medicine, namely, consent, negligence and confidentiality. But, in regard to transplantation of organs from a dead body, there is the relevance of certain additional issues—concerning rights, if any, in regard to a dead body and defining the moment of death.

10. *Diamond v. Chakravarti* (1980) 447 U. S. 303.

11. *Encyclopaedia Britannica*, Vol. 19, 717, 738, 741, 742; See also Dianna Hoffman, *The Biotechnology Revolution* (1988-89) 38 *Drake Law Rev.*

Consent in transplanta tion (living donors : civil law)

The common law of England¹² offers no rule or principle dealing with human tissue transplants as such, nor with surgery as such. English writers on the subject of consent to medical treatment usually begin with a discussion of the common law offence of "maim". We need not adopt this artificial approach. But the position on the subject may be thus summarised :

- (a) Transplantation of human tissues, or, for that matter, surgery generally, amounts to assault, which is a tort giving rise to a private claim for damages, enforceable in the courts, if there be no consent.
- (b) Assault, which is a trespass to the person, can be justified or defended, *inter alia*, on the basis of the consent given by the person assaulted, at least where he is competent to consent in point of age and mental capacity.
- (c) In England (even for the purpose of civil liability), the defence of consent may not extend to an operation involving unreasonable risk to life or health. Speaking extra-judicially, Lord Justice Edmund Davies has said¹³ that he would "be surprised if a surgeon were *successfully sued for trespass to the person* or convicted of causing bodily harm to one of full age and intelligence who freely consented to act as donor—*always provided* that the operation did not present unreasonable risk to the donor's life or health. That proviso is essential. A man may declare himself ready to die for another, but the surgeon must not take him at his word".

Broadly speaking, the above position may hold good in India also, for civil liability. In this context, it would also be relevant to note an American case.¹⁴ McFall was suffering from a rare bone marrow. His cousin, Shimp, was a compatible donor and agreed to donate bone marrow. But (after one test) he resiled, on his wife's objection. McFall sued Shimp for an injunction to compel the defendant to submit to further tests and (eventually) to transplant. Plaintiff's attorney argued, that it was the duty of the defendant to donate his bone marrow and that, in order to save the life of one of its members by the only means available, society can infringe an individual's absolute right to his "bodily

integrity."¹⁵ However, Judge Flaherty rejected the contention. He agreed that the defendant's conduct was morally indefensible. But the court could not *compel* the defendant to submit to bodily intrusion. "To do so, would defeat the sanctity of the individual and would impose a rule that would know no limits and one could not imagine where the line would be drawn. Forcible extraction of living body tissue causes revulsion to the judicial mind. Such (action) would raise the spectre of the swastika and the inquisition, reminiscent of the horrors this portends." McFall lost the action. He died after three weeks.

Consent and the criminal law

The law and literature on consent in criminal law is extensive and and exhaustive study would require separate consideration of the adult patient, the child patient, the mentally incompetent patient and the unconscious patient. Here, only the basic principles will be stated.

In England, at common law, consent is no defence to a criminal charge of a serious offence. Exceptions have been made to it and, presumably, normal surgery would be an exception. But there is no decided case directly on point.¹⁶ "the criminal law is not entirely sympathetic to the defence of consent. In addition, it cannot be said in any normal sense that the removal of the tissue is for the benefit of the donor. It follows that the surgeon's position is not easily determined."

Sir James Fitzjames Stephen formulated the general proposition that "everyone has a right to consent to the infliction of any bodily injury in the nature of a surgical operation upon himself"¹⁷ and stated that although he knew of no legal authority for this, the existence of surgery as a profession assumed its truth.

Professor Dworkin has suggested¹⁸ that in order to render bodily interference by transplantation lawful, the following four conditions must be satisfied :

- (i) There must be consent.
- (ii) The operation must be lawful.
- (iii) It must have a therapeutic value.
- (iv) The consent must be an informed one.

15. As to bodily integrity, see *S. v. S*, (1970) 3 *All E R* 107, 111 (H. L.).

16. *Supra* n. 7, *Human Tissue Transplants* (1977).

17. Quoted in Dworkin, *Supra* n. 13.

18. *Ibid*

12. Law Reform Commission of Australia, Report No. 7, *Human Tissue Transplant*, 1977, 22-24.

13. Gerald Dworkin, "The Law Relating to Organ Transplantation in England", (1977) 33 *Modern Law Rev.* 353, 359.

14. *McFall v. Shimp*, (Court of Common Pleas) Allegheny Court, Pennsylvania (26 July, 1978); Russel Scott, *Body as Property*, 127-129.

The Indian Penal Code in sections 88-92 recognises consent as one of the general exceptions to criminal liability, but there are certain important conditions. Consent does not, in the first place, justify the intentional causing of death.¹⁹ Secondly, it does not justify the doing of an act known to be likely to cause death or grievous hurt unless the act is done in good faith for the benefit of the person to whom bodily harm is caused.²⁰ Thirdly, where the person to be harmed is below 12 years of age or mentally incompetent, the consent of his guardian is required and the act must be done in good faith for the benefit of the person to be harmed. There are certain other requirements for these exceptions and there are certain other exceptions also, but here only the requirements relevant to transplantation have been stated in a simplified form.

It follows from the above summary that if the removal of an organ amounts to "grievous hurt" then it cannot be done unless the removal is for the benefit of the person whose organ is removed. Prima facie, the definition²¹ of "grievous hurt" in the I.P.C. would seem to take in organ removal, because the definition enumerates "Destruction or permanent impairment or the powers of any member or Joint" as a species of grievous hurt.

The question then arises whether the removal of A's organ for its transplantation to B is for A's benefit? The receipt by A of money consideration is, of course, outside the range of "benefit." It must be a therapeutic benefit. Removal of a kidney may even be detrimental to the donor. It may be that the court will not inquire into this aspect in countries where the law is not codified.²²

But in India, the criminal law is codified: The problem of "benefit" to the donor is thus of importance in the Indian law. Where the law, relating to criminal liability, and exemptions therefrom is not codified, courts can still take the view that removal of an organ with the consent of the living donor is not an offence, as there is "just cause or excuse" or "good reason" for it.²³

Negligence in transplantation

It is believed that if (a) the donor of a tissue or an organ or (b) a doctor or (c) a procurement agency, is guilty of negligence.²⁴ thereby

causing harm to the donee, an action for damages²⁵ would lie, which would be governed by the ordinary principles of negligence. In practice, the donor often remains anonymous, so that the donee may not be able to trace the donor. The question has arisen in the U. S. whether the donee of blood through blood transfusion, who caught AIDS through such transfusion, can ask the court to compel the Blood Service to disclose the names and addresses of the blood donors. The Supreme Court of Florida²⁶ posed the following question in 1987 :

Do privacy interests of volunteer blood donors and a blood service's (interest) and society's interest in maintaining a strong volunteer blood donation system outweigh a plaintiff's interest in discovering the names and addresses of the blood donors in the hope that further discovery will provide some evidence that he contracted AIDS from transfusions necessitated by injuries which are the subject of his suit ?

The Court answered the above question in the affirmative. The Blood Service was not sued for negligence, and was not a party to the personal injury litigated.

The donee can, however, sue the person performing the operation for negligence. Giesen²⁷ cites a French case in which a surgeon was held liable for transplanting a cornea into a recipient, having taken it from a donor who had died from rabies. The recipient shortly afterwards died of rabies. In a case decided in the United States²⁸ in 1975, a claim was held competent where it was alleged that the hospital was negligent in the selection of cornea donors who were not fit within the medical standard of the community.

Issues of negligence have arisen in very interesting situations in kidney transplantation. If Mrs. A's only kidney is removed by mistake (being mistaken for an ovarian cyst) with the result that it becomes necessary to get a kidney donor for A, can the donor claim damages from the negligent surgeon who wrongly removed Mrs. A's kidney? A Canadian case²⁹ takes the view that he can; on the reasoning that "the transplant surely must be viewed as an expected result, something to be anticipated, as a consequence of the loss of normal kidney function".

25. Kusanovich, "Medical Malpractice Liability and the Organ Transplant" (1971) *University of San Francisco L. Rev.* 223.

26. *Rasmussen v. South Florida Blood Service*, (1987) 500 SO 2d 533.

27. Cited in Norris, *Supra* n. 24, at 442, 445, 446.

28. *Ravenis v. Detroit General Hospital*, (1975) 234 N. W. 2d 411.

29. *Urbanski v. Patel*, (1978) 84 D.L.R. 3rd 650.

19. *Indian Penal Code*, Section, 87.

20. *Id.*, Section 88

21. *Id.*, Section 320.

22. Cf. Skegg, *Law, Ethics and Medicine*, 1984, 36, 37, 43.

23. *Ibid.*, 36-43.

24. Norris, "Human Tissue Transplants : Legal Liability in Different Jurisdiction", (1985) *ICLQ* 443, 445, 446.

Similar view has been taken in a decision of the German Federal Supreme Court³⁰ on 30 June 1987. The Canadian decision (which was pronounced by the Queen's Bench Division, Manitoba) has been favourably noted by an English writer.³¹

But American decisions are to the contrary. Thus, the New York Supreme Court (Appellate Division) has held³² that the donor of a kidney for kidney transplant has no cause of action against a physician who is allegedly guilty of negligence in the diagnosis and prescribed treatment of his patient (the donee). The plaintiff is not "within the zone of danger". This is so even though American courts have been quite liberal in their general approach in rescue cases. There are the famous dicta of Mr. Justice Cardozo while sitting as a Judge in New York:³³

Danger invites rescue. The cry of distress is the summons to relief.... The wrong that imperils life is a wrong to the imperilled victim, it is a wrong also to his rescuer.... The risk of rescue, if only it be not wanton, is born of the occasion. The emergency begets the man. The wrongdoer may not have foreseen the coming of a deliverer. He is accountable as if he had.³⁴

Definition of death

Transplantation of organs necessarily involves a consideration of the precise point at which death may be said to occur. The courts have sidestepped the issue,³⁵ but doctors cannot do so. Over the years, so much literature has accumulated on the subject, at least since 1968 when the Harvard Medical School published the Reports of its Ad hoc Committee on the subject.³⁶ The other literature is also vast. At the moment, the most important theories are brain death and cardiac death.

The Indian legal system does not have a definition of death. It will have to make a choice of its own.

30. JZ 1988, 150 (German Federal Supreme Court).

31. John Spencer, "Tissue Donors: Are they Rescuers or Merely Volunteers?", (1979) *C L J.* 45, 46, 47.

32. *Moore v. Shah*, 458 N.Y.S. 2d 33 (1982).

33. *Wagner v. International Railway Co.*, (1921) 232 N. Y. 176, 180 (Cardozo, J.).

34. *CF. Goodhart*, in: (1935) 5 *Cambridge Law Journal* 132 *Corothers v. Slobodan*, (1975) 2 *S C.R.* 633 (Canada).

35. *E. g. R. v. Malcherek*, (1981) 2 *All E. R.* 422 (C. A.).

36. Ad hoc Committee of the Harvard Medical School etc. (1968) 205 *JAMA* 337.

An English case³⁷ illustrates the problem. Mrs. Bell suffered a brain haemorrhage while 24 weeks pregnant. She was being kept on a life-support system in the hope that the baby could be born alive. The evidence suggested that Mrs. Bell was probably clinically dead, but tests had not been undertaken.

Seven national newspapers obtained and published, without any authority from Mrs. Bell, photographs of the couple's wedding. Thereafter Mr. Bell entered into an agreement with the plaintiffs, granting them exclusive rights to all his archive photographs and undertaking to pose exclusively for the plaintiffs for photographs with his baby within 24 hours of its birth, all rights to those photographs to be owned by the plaintiffs. The plaintiffs wrote to many national newspapers informing them that they held the exclusive rights to Mr. Bell's photographs and warning them not to publish these. The defendants replied that they intended to use the photographs. The plaintiffs therefore obtained *ex parte* injunctions restraining the defendants from publishing the photographs.

On the *inter partes* hearing of the motion, the defendants argued that the copyright in the photographs vested either in Mrs. Bell alone or in Mr. and Mrs. Bell together, and that Mr. Bell was unable to grant an exclusive licence since Mrs. Bell was still alive and had not consented. The evidence was that before the wedding Mr. Bell had asked his fiancée to arrange for the photographs to be taken, but that afterwards Mr. Bell paid the bill. The judge observed (after narrating the above facts):

The evidence, such as it is, suggests that Mrs. Bell is probably clinically dead, that is to say, that her brain had ceased to function altogether, although she is breathing and her bodily functions are being kept going. Medical tests to determine whether or not Mrs. Bell is clinically dead have not been undertaken, and understandably no one has thought it appropriate to obtain a death certificate.....In submitting to me that the plaintiffs have no real prospect of succeeding at the trial, Mr. Shaw was really submitting that Mrs. Bell is unarguably still alive. The evidence does not go nearly far enough to warrant any such conclusion. It is no doubt at all that there is at the very least a serious question to be tried whether Mrs. Bille is alive or dead. Indeed, so far as the evidence before me goes, it supports the conclusion that she is probably already legally dead.

37. *Mail Newspapers v. Express Newspapers*, (1987) *FSR* 90 (Millett, J.)

A leading pathologist belonging to the Medical Faculty of the Edinburgh University tells us a story about one of his own professors of surgery who, while performing an operation, observed that the patient was no longer breathing. He told the anaesthetist, "The patient seems to be dead at my end. How is the position at your end?"

This episode, humorous though it may be, reminds us of the modern controversy about the precise moment of death. This controversy has assumed practical importance after the increasing resort to transplantation of organs. While a few organs can be transplanted from live donors, a few can be transplanted only from persons who are dead. It therefore becomes necessary to determine the moment of "death". In such cases, the problem of the exact definition and criteria of death, is of fundamental importance. The diagnosis of death is also important when the decision has to be taken to turn off the heart-lung machine, in case of hopelessly unconscious patients who have been maintained under these conditions for some time.

A dead brain in a body whose heart is beating is one of the more macabre products of modern technology.³⁸

Juridical and ethical aspects

The juridical and ethical regimes applicable to a dead person are based on different principles and have different aims than those relevant to living persons. They seek to uphold respect for the dead person and for the feelings of those by whom he was known and loved. This renders it desirable that there should be no obscurity in this regard. The difficulty, however, is that physiologically, death is a process. But the law requires an event, a precise point in time beyond which a person is regarded as dead. Theoretically, it is possible to mark this point anywhere along a continuum, from permanent loss of ability to interact with one's surroundings, to whole brain death or even cellular death at the other end.³⁹ The question is, at what precise point it should be demarcated.

Sources of various proposals as to definition of death

In regard to the definition of death, two types of recommendations may now be said to be operative. First, there are those that address themselves mainly to the definition in the context of transplantation.⁴⁰ Secondly, there are those that envisage a wider field, for the application of the definition.

38. Pallis, *ABC of Brain stem Death*, 1-4.

39. J. F. Leavell, "Legal Problems in Organ Transplants" 44 *Mississippi L. J.* 865, 881, fn. 94.

40. See Editorial, "Determination of Death", 1970 1 *The Lancet*, 1092.

The sources from which various suggested definitions of death emanate, also present a fair variety. There are, in the first place, criteria suggested by national laws. France, Hungary and Italy are amongst the countries which have adopted such definitions by legislation. In the United States, the State of Kansas was the first State to adopt a definition of death by statute. Many others have followed, though the laws enacted are not identical.

Secondly, there are recommendations made by the international agencies and international conferences. Of these, the most well-known are (i) the statement of the Council of International Organisations of Medical Science (1968) (in relation to heart transplantation)⁴¹ and (ii) the so-called Declaration of Sydney (1968).⁴² Then, there is the text adopted by the Transplantation Society (1970), containing rules of conduct concerning transplantation.⁴³ Incidentally, this text does not give a definition of death as such, but specifies only that "the definition of death of an individual is that of brain death *rather than* cardiac death." It further says that death should be declared by at least two physicians, whose primary responsibility is care of the potential donor and who are independent of the transplantation team.

Thirdly, there are recommendations made by academic and professional bodies. As examples of this, one may refer to the recommendation of the Ad-hoc Committee of the Harvard Medical School (1968), the German Society of Surgery (1969) and the Swiss Academy of Medical Sciences (1969). Some Law Reform Commissions have also dealt with the subject.

The comparative development

Australia—The Australian proposal on the subject is worth quoting as a simple formulation. The proposal of the Law Commission of Australia⁴⁴ is as under :

"A person has died when there has occurred—

- (a) irreversible cessation of all function of the brain of the person or
- (b) irreversible circulation of the blood in the body of the person."

The proposal is understood to have been enacted in that country in the Human Tissue Act, 1981.

41. *CIOMS Declaration*.

42. 22nd World Medical Assembly, Declaration of Sydney, *Statement on Death*, 1968.

43. *Transplantation Society*, 1970.

44. *Supra* n 12.

Canada—The Law Reform Commission of Canada proposed an amendment in the Federal Interpretation Act to add a definition of brain-based death to the law, "for all purpose within the jurisdiction of the Parliament of Canada."⁴⁵

England—In England, brain stem death is currently the established determinant of death in the medical profession.⁴⁶ In 1979, a Conference of the Medical Royal College accepted this as the true test, in the Report titled "Diagnosis of Death." In the same year (1979), the DHSS Published a Code of Practice on the removal of cadaveric organs for transplantation, expressing the view that death should be diagnosed by irreversible cessation of the brain-stem function. But the legal position is still obscure.⁴⁷ In *R. v. Malcharek*, the Court of Appeal stated that victims in both the cases were dead on a "brain death" test or on the traditional heartbeat and breathing test. The court did not express any positive opinion as to which of the two tests would receive legal recognition.

In the case of *Regina v. Malcharek*,⁴⁸ the main question whether the doctors who had disconnected the life support machine after deciding that the victim was "brain dead", can be said to "cause" death of the victim. The argument was, that the original wound was not the continuing and operating and substantial cause of death. But the court did not accept the argument.⁴⁹ On the facts of the case, the court disposed of the argument in the following words :

This is not the occasion for any decision as to what constitutes death. Modern techniques have undoubtedly resulted in the blurring of many of the conventional and traditional concepts of death. A person's heart can now be removed altogether without death supervening, machines can keep the blood circulating through the vessels of the body until a new heart can be implanted in the patient, and even though a person is no longer able to breath spontaneously, a ventilating machine can, so to speak, do his breathing for him, as is demonstrated in the two cases before us. There is,

45 See (U. S.) President's Commission for the Study of Ethical Problems in Medicine etc. Research Paper, *Defining Death*.

46 1976 Code of Practice, (1976) 2 *British Medical Journal* 1187, 1188, as modified in 1979. See also (1979) 1 *British Medical Journal*, 33.

47. David T. Price, "How viable is the present scope", 1987, 16 *Angl. Am. Law Rev.*, 220, 212, fn. 68.

48. See also *R. v. Malcharek* (1987) 2 *All ER* 422 (A).

49. For further discussion, see J. M. Goldenring, "The brain life theory" 1985, 11 *Journal of Medical Ethics*, 198-204.

it seems, a body of opinion in the medical profession that there is only one true test of death and that is the irreversible death of the brain stem which controls the basic functions of the body, such as breathing. When this occurs, it is said the body has died, even though by mechanical means the lungs are being caused to operate and some circulation of blood is taking place.

We have had placed before us, and have been asked to admit, evidence that in each of these two cases the medical men concerned did not comply with all the suggested criteria for establishing such brain death. Indeed, further evidence has been suggested and placed before us that those criteria or tests are not in themselves stringent enough. However, in each of these two cases there is no doubt that whatever test is applied, the victim died; that is to say, applying the traditional test, all 'body functions, breathing and heartbeat and brain function came to an end, at the latest, soon after the ventilator was disconnected.

Hungary—The Hungarian law relating to criteria for ascertaining that death has occurred, was passed for implementation of the Hungarian law on health, in respect to organ and tissue removal. The criteria given are :

- (a) deep coma;
- (b) complete absence of all reflexes;
- (c) both pupils fully dilated and unreactive to light;
- (d) verification, by means of an examination (repeated several times during a ten-minute period), that there is no spontaneous respiration (the ten-minute period must be counted from the time when the artificial maintenance of respiration commenced);
- (e) an absolutely linear electro-encephalographic tracing, without sustained reaction to intermittent stimulation induced under conditions conforming to the provisions of Annexure 3 to the law (no cerebral electrical activity).

Switzerland—In Switzerland, the essential provisions of the Directions for the Definition and Diagnosis of Death of the Swiss Academy of Medical Sciences, 1969 prescribed that a person must be regarded as dead, if one or both of the following conditions are fulfilled ;

- (a) irreversible cardiac arrest, resulting in interruption of blood circulation in the body, and, thus, in the brain (cardiocirculatory death);
- (b) complete and irreversible failure of the cerebral function, or brain death (cerebral death).

United States—The President's Commission in U.S.A., in the Uniform Determination of Death Act as recommended by it, formulated section 1 as under :—

1. *Determination of death.* An individual who has sustained either (1) irreversible and cessation of circulatory and respiratory functions or (2) irreversible functions of cessation of all functions of the entire brain including the brain stem is dead. A determination of death must be made in accordance with accepted medical standards.

The American Bar Association also suggested a model statute which states as under :—

For all legal purposes a human body with irreversible cessation of total brain function according to usual and customary standards of medical practice, should be considered dead.

The above model statute (with or without modifications) has been adopted in 5 States including Illinois. The California law (1974) was followed in the U.S.A. Model Statute, but the California statute permits the determination to be made based on other usual and customary procedures.

The two alternative diagnostic criteria of death, given in the Swiss Directives, are incorporated (though in more elaborate terms) in the definition enacted by Kansas State (U.S.A.). It was drafted by L. F. Taylor. Incidentally, Kansas was the first State in the United States to adopt a statutory definition of death. The first alternative test adopted in Kansas (cardiac respiratory cessation) reads as under :

A person will be considered medically and legally dead if, in the opinion of a physician, based on ordinary standards of medical practice, there is the absence of spontaneous respiratory and cardiac function and because of the disease or condition which caused, directly or indirectly these functions to cease, or because of the passage of time since these functions ceased, attempts at resuscitation are considered hopeless, and in this event death will have occurred at the time these functions ceased.⁵⁰

50. Kansas Stat. Ann. Section 77-202 (Suppl. 1973).

The second alternative criterion of death in the Kansas definition is related to "absence of spontaneous brain function". Like the first alternative, it also requires the opinion of a physician, based on ordinary standard of medical practice and makes provision regarding attempts at resuscitation.

It is particularly provided in the Kansas statute that "Death is to be pronounced before artificial means of supporting respiratory and circulatory functions are terminated and before any vital organ is removed for transplantation".⁵¹

Whether legislation needed

These developments show that recognition of brain death is a response to the modern scientific advances. At the same time, it may not be wise to adopt a legislation binding down the action of doctors. The criteria of death should not therefore be legislated, unless the absence of legislation has raised concrete and serious difficulties in a particular country.

Conclusion

The variety of issues in medical law is fascinating as well as staggering. But one can survey only the developments that are known to have raised problems in practice. The future may bring to light many more.

In law, or in science, it is not possible to say, "*Ut nihil amplius desiderandum relictum sit*" ("That nothing further remains to be done"). But, in framing legislation, it is wise to follow the maxim of Carl Friedrich Gauss (the famous German mathematician)—"*Pauca, sed matura*" ("Few, but ripe"). A few good and mature laws are better than too many hasty pieces of legislations.

51. For further references, see H. L. Hirsh, "Brain Death : Medico-Legal Status", 1976, 69 (3) *Southern Med. J.* 286.

EXPERIMENTATION ON HUMAN SUBJECTS AND THE EMERGING LAW

Dr. K. P. SINGH MAHALWAR*

Medical science is a developing art, which advances with the passage of time and innovation of new techniques. The new techniques of cure are evolved by experimenting on human beings as they are not yet tested. Many ailments are susceptible to numerous treatments. Some of the treatments are tested and some are never, having no evidence of their efficacy, which can be determined only by human experimentation. On the one hand advancement of the knowledge is essential and on the other hand patients should not be used as 'guinea pigs' for clinical research, i.e., human dignity and rights of individual should not be violated. It has created problems for the researchers. International Covenant on Civil and Political Rights¹ guarantees that no one shall be subjected to medical or scientific experimentation, without his free consent. Its main object is to protect the autonomy of those undergoing a medical procedure. "Every human being of adult years and sound mind has the right to determine what shall be done with his own body."² Conflict between the two (i.e. research and individual's rights) has to be reconciled as both are equally important. Medical experimentation may involve use of new drugs or new techniques which have yet to be applied. Though experimentation is essential for advancement of science of medicine and for the good of humanity, it is better to experiment the new drugs and techniques in the first instance on animals and then on human beings with due precautions.

Experiments may be conducted either to detect the impact of new drugs or to see the efficacy of an accepted medicine or in those cases where no recognised alternative cure or medicine is available and the patient is in a serious condition. Sometimes well recognised treatments or techniques are found to be outdated as new technique, which is less harmful, may have to be adopted after being experimented on human beings. Experimentation may be therapeutic by which we mean treating

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2. Justice Cardozo, in *Schloendorff v. Society of N. Y. Hospitals*, 211 NY, 125 (1915). See also Alan Moisel, "The Exceptions to the informed consent doctrine: striking a balance between competing values in medical decision making" (1979) *Wis. L. Rev.* 413.

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Use of new drugs

In experimentation by using new drugs or medical products, medical practitioner or researcher should know the nature and its impact on human physiology. He must administer those drugs, only in accordance with the instructions from manufactures or statutory instructions, failing which he may cause damage to the patient and be held liable for being negligent. Doctor may use the new medical product, when he has sufficient information to justify its use. It is his duty to disclose the risks inherent in the treatment to the patient before commencing the treatment. Doctors ought to be very careful in using new drugs and they must not rely on second hand information too, instead of experimenting everything on patient, otherwise he will be doing a great harm. He is responsible to the public at large through individual patients. The conflict between community interest (i.e. human experimentation for advancement of knowledge) and patient's interest (i.e. to keep aloof of hazard involved in experimentation) can be resolved by doctor, if he is concerned only with the patient and treat him without bothering about medical experimentation. If the patient consents voluntarily for clinical experiments with new drugs, the doctor is not to be held liable unless he acts *contra legem artis*.

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silment, which may be full of risks or hazards. An innovative doctor may not be aware of the dangers, in consequence of which patients may have to suffer too much. A treatment by deviating from the accepted or recognized practice, is called experimentation, for the advancement of knowledge. As a general rule, deviation from accepted practice is considered to be negligence, if it causes harm to the patient; but deviation involved in experimentation for advancement of science of medicine will not amount to negligence provided due care and skill has been exercised, according to the situation, nature-intensity of drugs or procedure adopted. Adoption of new technique can be justified by the practitioner by establishing that he was sufficiently competent to carry out the procedure and that the technique was beneficial to the mankind in comparison with the alternative or accepted method. In treatments involving new techniques more care and skill is required, as the consequences and effects are not known to the practitioner. If such treatment gives bad results the plaintiff must prove that the medical practitioner fell below the standard of a reasonably prudent practitioner.

To establish liability of a doctor where deviation from normal practice is alleged, three facts require to be established; first of all, there is a usual and normal practice; secondly, that the doctor has not adopted that practice; and thirdly which the course, the doctor adopted, is one which no professional man of ordinary skill would have taken if he had been acting with ordinary care.⁴

A doctor may adopt some new technique with a little deviation from the recognised practice without being negligent. His desire to do so is to be respected without burdening him with liabilities, provided that the risks he undertook were worth taking by ordinary prudence subject to statutory instructions, if any, or regulations and bye-laws of the professional bodies. By the choice of new therapies the community can be benefitted, but on the other hand there is a fear that the doctor may incur liability for the damage caused to the patient. The rule in *Hunter v. Hanley*⁵ strikes a right balance between these two apparently contradictory considerations. It gives liberty to the doctor for experimentation by slightly deviating from approved practice without being negligent and at the same time it puts a restraint on the medication which might be detrimental to the patient. Both the doctor and the interests of the public will be protected, provided that doctors do not opt for new therapies for their own sake, where there is a safe and efficient alternative

therapy available, provided firstly, there are good medical reasons for so doing; and secondly, an 'informed' consent has been obtained by disclosing not only the relative risks, but also the availability of alternative therapy.⁶

Every form of therapy used in medical treatment involves a degree of risk to the patient, but there can be no precise standard of safety because of the very nature of medicine. It has to be based on clinical experience and personal clinical judgement. The Science of medicine has no absolute standards. A group of doctors presented with the same patients may well agree on the clinical diagnosis, but may have different views regarding appropriate treatment. There is usually 'no right' or 'wrong' judgment unless there is some negligence. The freedom of the doctor to treat a patient to the best of his ability is largely accepted by the medical legal professions and the public, even where it involves the use of new therapies.⁷

So far as the non-therapeutic experimentation is concerned, medical practitioner's liability ought to be stricter since it is purely for scientific purposes. In the field of bio-medical research, a fundamental distinction must be recognised between medical research in which the aim is essentially diagnostic or therapeutic for a patient, and in the bio-medical research, the essential object of which is purely scientific and without direct diagnostic and therapeutic value to the person subjected to research.⁸

Conflict of Interests

It is fairly obvious that we have to bear some sort of risks as well as benefits of medicine. Advancement of knowledge is essential so that it can keep pace with the new diseases being witnessed almost everyday. A balance must, therefore, be struck between individual's rights and interests of medicine i.e. community at large. In the United States a committee submitted report which throws a flood of light on this dilemma created by medical experimentation. According to this report the question of advance scientific knowledge through experimentation must be reconciled with our society's belief in the inviolability of a person's mind and body. Further this personal autonomy must be reconciled with the need in certain circumstances for the state to restrict the individual choice concerning experimental medical procedures in order to enhance or

6. D. Soutar & S. A. M. McLean, "Medical progress and Law", in: Sheela McLean, *Legal issue in Medicine*, 1981, 125.

7. *Ibid*, 126-127.

8. *Declaration of Tokyo*, 1975.

4. *Hunter v. Hanley*, (1955) SC 200, 206.

5. *Ibid*.

protect his autonomy and welfare. The problem of medical experimentation is the product of the unresolved conflict between two strongly held values, the dignity and integrity of the individual and the freedom of scientific inquiry. Professionals of many disciplines and researchers especially exercise unexamined discretion to interfere in the lives of their subjects for the sake of scientific progress. Although exposure to needless harm and neglect of the duty to obtain the subject's consent have been generally frowned upon in theory, the infliction of unnecessary harm and infringements on informed consent are frequently accepted in practice as the price to be paid for the advancement of knowledge. How have the investigators come to claim this sweeping prerogative? If the answer to this question is that the society has authorized professionals to choose between scientific progress and individual human dignity and welfare, then the question comes: Should not society retain some control over the research enterprise? We agree with Dr. Jones that,

a slower progress in the conquest of disease would not threaten society, grievous as it is to those who have to deplore that their particular disease be not yet conquered, but that society would indeed be threatened by the erosion of those moral values whose loss possibly caused by too ruthless a pursuit of scientific progress, would make its most dazzling triumphs not worth having.⁹

Medical profession is one of the kind where development and progress are in continuous processes. There is a growth of experimentation in surgery and medicine to make improvement over the old practices, procedures and techniques, but unwarranted and negligent deviation from recognised path may cause harm giving rise to tortious liability. In *Slater v. Baker Stapleton*¹⁰, probably the earliest case, a medical practitioner used a heavy steel implement to heal and straighten a leg by "extension" instead of by "compression", which was the approved treatment at that time. The practitioner did not explain his method to his patient, or risks involved in it so that his informed consent could be secured. The defendant, Baker, put on to the plaintiff's leg an heavy steel rod that had teeth and broke the leg again. Three or four months afterwards the plaintiff was still very ill. The patient brought an action in tort against the use of new procedure causing damage. Holding the defendant liable, the court observed:

9. Report of U. S. Senate, Committee on the Judiciary, Sub Committee on Constitutional Rights. *Individual Rights and the Federal Role in Behaviour Modification*, (1974)

10. (1767) 2 Wils., 359.

Many men very skilled in their profession have frequently acted out of the common way for the sake of trying experiments, and defendant wanted to try an experiment with this new instrument; if it was true, it was a rash action, and he who acts rashly, acts ignorantly.¹¹ Courts also noted the failure of surgeon in making full disclosure of the method adopted on the plaintiff patient, and severely criticises it. Thus decision accorded approval to the necessity of informed consent.

If a patient's condition or the nature of his illness or injury is such that the usual and accepted method of treatment would present unusual hazards to him, a departure from it should not be regarded as negligence. In a case¹², a child with Down's syndrome was a resident of a state institution. She had heart and lung problems and developed cataracts in both eyes. Her mother requested an eye surgery on numerous occasions and the surgeon incharge of the case refused. He felt that her physical ailments made the administration of anaesthesia too dangerous, and that she would also rip off the bandages. The child's mother removed her from the institution and surgery was successfully performed elsewhere. She sued for negligent delay of surgery. The court held that the institution and its surgeon did not commit any wrong as the defendant had a right to use his best medical judgement. Thus the doctors can justify the deviation by showing that their method has been accepted by not less than a minority of respectable medical practitioners.

Informed consent

It is informed consent which is essential to carry out medical experimentation or treatment. Mere consent does not relieve the doctor of this obligation of acting with care or of possessing knowledge, skill and qualification. Informed consent implies that the person involved should have legal capacity to give consent; should be so situated as to be able to exercise free power of choice—without the intervention of any element of force, fraud, deceit, duress or other ulterior form of constraint or coercion; and should have sufficient knowledge and comprehension of the elements of subject matter involved as to enable him to make an understanding and an enlightened decision. This latter element requires that before the acceptance of an affirmative decision by the experimental subject, it should be made known to him the nature, duration and purpose of the experiment; the method and means by which it is to be conducted; all inconvenience and hazards reasonably to be expected; and finally the effects

11. *Supra* note 10.

12. In *Davis v. New York*, 315 NY, s 2d 82. NY (1970).

upon his health or person which may possibly come from his participation in the experiment.¹³ Competency or capacity for the purposes of consent to medical experimentation has not been defined. Every adult of sound mind is presumed to be competent to give consent. The whole object of informed consent comes to an end, if the individual giving consent can not understand ifs and buts of the proposed procedures. Especially in cases where elderly people are subjects of experimentation, protection of their autonomy is no less than other subjects.¹⁴ The most troubling area for medical researcher employing elderly people is the genuineness and sanctity of experimentation on patients suffering from *senile dementia of Alzheimer* type. Most Alzheimer patients are elderly and this disease effects the ability to give consent. Experimentation can be done only on a patient suffering from this disease. Consent is necessarily to be secured but the nature and severity of the disease renders it impossible to obtain consent. But the research can be done only on those suffering from the above mentioned disease. Law does not recognize any different standards for different type of patients with regard to informed consent. It may, therefore, be suggested that courts must take note of these hardships to elderly people so as to check the abuse of the research and encroachment on their physical autonomy. Though consent and disclosure are the requirements of law, it has been observed that in most of the hospitals attached to medical colleges and institutes of medical sciences, everyday experiments are done on innocent and illiterate patients without their knowledge, but it is very seldom that a patient sue against the researcher or medical practitioner for obtaining his consent without full disclosure.

The National Commission for the protection of human subjects of bio-medical and behavioural research was created in the United States by National Research Act, 1974, whose object was to lay down guidelines for research on children, prisoners, foetus, mentally infirm etc. There is very little codified law on this area of experimentation. Consent of the patient or subject is so important that even where approved methods have failed to cure and doctor wishes innovative therapy, informed consent can not be dispensed with.¹⁵ There are regulations of Department of Health, Education and Welfare in the United States for clinical trials of drugs, which require full and free consent of all person used as clinical subjects or of their parents or representatives. Food, Drug and Cosmetic Act (21 USC Sec. 355), requires such regulations to be enforced by Secretary of DHEW.

13. Sec. 1. *The Code of Nuremberg*, 1947.

14. R. L. Schwartz, "Informed consent to participation in Medical Research employing elderly human subjects", *W.C.L.M.*, N. Delhi, Feb. 1975.

15. FDA Policy statement on Consent in clinical investigation (USA) & "Policy statement on ethical considerations involved in research on human subjects" ICMR, Delhi, 1980.

Statement of policy (on consent for use of investigational new drugs on humans) of United States¹⁶ lays down guidelines in a very lucid manner, so as to overcome the problems cropping up in experimentation i.e. personal autonomy of the individual, inviolability of his person and mind, infliction of unnecessary harm and infringement on the informed consent just for the scientific development involving unchecked discretion to interfere with the body of the subjects. Let the persons come voluntarily experimentation. Patients have right not to be subjected to experimental research and not to be involved in investigational new drugs unless they give informed consent that is the consent given after understanding the nature, consequences and risks of experiment. If he himself is unfit to give consent, a person who is his guardian or representative may give consent without being subjected to fear, coercion or under influence.

Medical ethics established by the American Medical Association, require three conditions to be satisfied in connection with the use of experimental drugs or procedures on humans : (1) the voluntary consent of the person on whom the experiment is to be performed must be obtained; (2) the danger in the the experiment must have been previously investigated by animal experimentation; and, (3) the experiment must be performed under proper medical protection and management.¹⁷

World Medical Association, in Declaration of Helsinki in 1964, which was revised in the Declaration on Tokyo, 1975, has also laid down in Para to the guidelines on ethics of experimentaion, which states :

that in the treatment of the sick persons, the doctor must be free to use a new therapeutic measure, if in his judgement, it offers hope of saving life, re-establishing health or alleviating suffering (Para I). The doctor can combine clinical research with professional care, the objective being the acquisition of new medical knowledge, only to the extent that clinical research is justified by its therapeutic value for the patient.

Therapeutic and non-therapeutic use of Experimentation

Experimentation on human beings may be aimed at therapeutic or non-therapeutic purposes. Therapeutic experimentation means application of untested drugs on patients direct for the benefit of the patient while non-therapeutic experiments are purely for the advancement of knowledge of medicine that is for purely scientific purposes. There is a lot of difference between the two regarding liability.

16. 21 C.F.R. § 310. 102, Consent for use of investigational new drugs on humans, statement of policy.

17. "Principles of medical ethics of the American Medical Association" in *opinions and reports of the judicial council*, Sec. 2, Comment 2, American Medical Association, Chicago.

Liability in therapeutic treatment does not arise simply because the new drugs are administered to the patients. Mere administration of new medical products does not constitute negligence. Medical practitioner's liability may occur either on the ground of *contra legem artis* (i.e. carelessness or failure to comply with the rules of profession) or failure of researcher in securing informed consent. The risks inherent in the experimentation on human subjects must be in proportion to the importance of the object sought to be achieved. If the new method which is indicated is harmless the research treatment can be considered to be skilful and justifiable. Interest of the sick person is above the development of medical science and society. Treatment with new methods must be preceded by careful assessment of predictable risk in comparison of foreseeable benefits to the subject or to others.

Application of new techniques or means without full disclosure of the extent of risks involved and reasons of use of new methods may be a good ground for legal action. It is for the practitioner to make disclosure of probable consequences of prospective treatment, so that the patient may or may not decide to be treated with the new technique.¹⁸ The doctor must be very careful in using a new drug if he does not know fully well the nature, consequences and risk involved in its prescription. The doctor must tell the patient that procedure is new and absolutely unproved and quantum of risk is unknown and by choosing a new or unapproved drug, he is deviating from the accepted practices (where in the risk are known and proved beneficial). The doctor must justify such deviation by adducing evidence that the new medicine was expected to be more successful with meagre risk. If there is sufficient proof of approved medicine being more beneficial in comparison to new and unapproved drug, liability is sure to fall on the physician. Where the new procedure or new medicine is indicated medically, experimentation with this drug does not become negligent, provided that the application of new drug is expected to be more beneficial to the health of patient, than the conventionally accepted medicine. The doctors should understand the composition of medicine, go through the instructions given by the manufacturers and act accordingly. Sometimes instructions are wrong and create suspicion in the mind of the doctor as to their correctness. In such circumstances the compliance of these indications may amount to negligence. The physician must be reasonably satisfied with the instructions before complying with them. Obligation of a doctor to keep himself abreast of the latest knowledge of medicine is judicially accepted failing which he may be

18. *Supra* n 8.

held liable.¹⁹ His duty of care is to be judged according to the state of knowledge, because man learns by experience²⁰. The state of knowledge of 1947 may not be suitable to judge the things of the present times.

Coming to the non-therapeutic experimentation, a researcher may be held liable for using new methods, procedure or medical products without giving full information to the patient, as to the risk involved. Non-therapeutic experimentation is essential for the further development of medical science, but the researchers must be very careful and cautious so that they may not have to face unpredictable consequences. Lack of care on their part may cause damage to the subject of research giving rise to the liability of researcher doctor. Non-therapeutic experiments are to be carried, not on the patients, but on the persons who desire to submit themselves for experimentation. In the purely scientific application of medical research carried out on a human being, it is the duty of the doctor to remain the protector of the life and health of that person on whom bio-medical research is being carried out.²¹ Though at the first instance experiments may be done on animals but it is not always feasible to get the desired results. An experiment which shows some good results on animals may not show similar results on human beings. Hence human volunteers are to be used for this purpose.

The evidence adduced by medical research council of the U. K. shows that it may not be possible to prove the proximity of cause hence it may be difficult to fix the liability. In human experimentation the doctor is always exposed to the danger of being held liable for harm caused to the subject. Can the researcher not experiment over his own body? Will it adequately serve the purpose? Perhaps it may not be feasible for a doctor or researcher to experiment on his own body. The only alternative is to find volunteers, who desire to come for the advancement of medical science and to make it very clear to them that administration of the drugs will be mainly for scientific purposes and the new drugs or techniques may not necessarily cure their ailment. If they agree and consent, then only they may be used for experimentation. Researcher/doctor must disclose to the patients the likely effects of the experiments which he reasonably anticipates. All probable risks must be disclosed to subject of experimentation, without trying to balance the risks involved in experiment and its advantages to the medical science.²² Mere substantial

19. *Crawford v. Charing cross Hospital* (1953), *The Times*, 23 Dec. 8th See also: *Mcquary v Eastwood* (1886) 12 or 402, *Slater v. Baker* (1767) 2 Wils. 359.

20. *Roe v Ministry of Health*, (1954) 2 QB 66.

21. *Supra* n. 8.

22. Policy Statement on human research (India, U.S.A., U.K., Germany etc.).

information may have to be given in case of new and untried treatments. It can be restricted only for the benefit of the patient. Non-therapeutical experiments causing injury to the person may be justified by the researcher by establishing a reasonable nexus between the object sought to be achieved and the hazards inherent in it. Bio-medical research involving human subject can not be legitimately carried out unless the importance of the objective is in proportion to the inherent risk to the subject.²³ Every bio-medical research project involving human subjects should be preceded by careful assessment of predictable risks in comparison to foreseeable benefits to the suffering humanity. Concern for the interests of the subject must always prevail over the interests of science and society.²⁴

In India there is no case law on liability in human experimentation and there is no specific legislation to regulate the liability in this field. However, the Indian Council of Medical Research has formulated its policy statement on experimentation²⁵ keeping in view the increase in quantum of medical research on human subjects in various research institutes of India. I.C.M.R. lays down the guidelines for experimentation on human subjects so that the rights and welfare of human subjects on whom experiments are carried out are adequately protected; the risks to an individual are outweighed by potential benefits to him or to the society or by the importance of the knowledge to be gained, the informed consent is obtained from the individual by methods that are appropriate and adequate; the clinical investigation on human subjects is carried out by an investigator who has the requisite background and competence to carry out such research and that the investigator has a framework for obtaining advice, support and assistance from his peers before embarking on a particular clinical research programme. I.C.M.R. requires every

23 *Ibid.*

24 *Supra* n. 8. "Recommendation: guiding Medical Doctors in Bio-Medical research involving human subjects" The declaration also provides guidelines for non-therapeutic biomedical research involving human subject as under:-

1. In the purely scientific application of medical research carried out on a human being it is the duty of the doctor to remain the protector of life and health of that person on whom bio medical research is being carried out.
2. Subjects should be volunteers- either healthy persons or patients for which the experimental design is not related to the patient's illness
3. The investigator or the investigating team should discontinue the research if in his/her or their judgement it may, if continued, be harmful to the individual,
4. In research on man, the interest of science and society should never take precedence over considerations related to the well being of the subject.

25. *Policy statement on Ethical Considerations involved in Research on human subjects*, ICMR, New Delhi, 1980.

research institute to have ethical committee consisting of experienced clinicians, who have been carrying out clinical research in the past, one expert on drugs and 1 or 2 non-medical persons to guide on ethical and legal issues. Wherever possible a lawyer or a judge should be a member of the ethical committee. Any research can be undertaken only after its assessment and approval by the ethical committee. The ethical committee should review every proposal for research on human subjects to assess, among other considerations, whether :

1. Voluntary consent of the individual is being obtained;
2. the experiments are so designed that they would yield meaningful results that could not be obtained by other methods;
3. the animal experiments carried out support the need for clinical experimentation;
4. the experiments would be conducted in a manner to avoid all unnecessary physical and mental suffering and injury;
5. the experiments have been planned in a manner so that the degree of risk to be taken should never exceed that determined by the humanitarian importance of the problem to be solved by the experiment;
6. proper preparations would be made and adequate facilities provided to protect the experimental subject against even remote possibilities of injury, disability or death;
7. safeguards have been taken to see that the experimentation would be conducted only by scientifically qualified persons who possess the requisite competence, experience and qualities to carry out the research;
8. it would be made perfectly clear to the subject or patient that he would be at liberty to bring the experiment to an end at any time he desires to do so;
9. the scientist-in-charge of the research project is prepared to terminate the experiment at any stage, if he has probable cause to believe, in the exercise of the good faith, skill and careful judgment required of him that the continuation of the experiment is likely to result in injury, disability or death of the experimental subject²⁶.

Clinical evaluation of any new drug can be carried out only after the approval of drug controller of India²⁷. Clinical research on children can be carried out only if it will directly benefit the child. Experiment

26. *Ibid.*, 3.

27. See *Drugs Act*, 1940.

on children is allowed only if it is an experiment on the clinical efficacy of a new method aiming at child's immediate cure. Guardian's/Patient's consent must be secured before carrying out research. Similarly, experimentation on mentally deficient persons may be carried out, if it is likely to cure the patient or to add more information about the condition or disease from which the patient is suffering. Informed consent of the guardian or parent of the mentally retarded person must be obtained before using new drugs or method²⁸.

It is submitted that there should be no experimentation for non-therapeutic purposes unless it is certified by the specialist that the condition of child is critical and there is no hope of his survival by using the available drugs and techniques.

Reimbursement to participants

The subjects of experimentation may be reasonably reimbursed for the loss of their time, expenses on food, transportation etc. or any kind of expenditure which is reasonable in the judgement of ethical committee varying from case to case depending upon the circumstances of the case. The policy statement speaks of reimbursement of expenses incurred by the subject²⁹ but it is silent on payment of compensation for the injuries sustained by him as a result of medical researcher's inadvertence or defiance of the regulations enumerated in policy statement. The volunteer, who allows himself to suffer for the humanity, however, should be treated with utmost respect and veneration. Sacrifice made by him can not be compensated in money. It is the duty of the researchers to see that as little harm is done to the volunteer as possible. Apart from being reimbursed for expenses incurred by the subject, he should also be suitably rewarded as a mark of respect. There is a need to formulate the principles governing liability in experimentation.

As research is an integral part of the science of medicine, experimentation on human subjects may go on. But that has to be done with reasonable care and skill after obtaining the informed consent. Information must be given to the subject in comprehensive and simple language, and not in a technical language. Irrelevant experimentation is also bad as it neither benefits the science nor does it cure the ailment. Medicalman should not overlook the hazards of experimentation as compared to its advantages to the mankind. A person exposing himself to risks involved in experimentation for the sake of society's interest should not go unredressed for injuries. He should have a

28. *Id.*, at 6.

29. *Ibid.*

cause of action on the basis of strict liability against the authority to whom he has consented³⁰. However, in view of the judicial pronouncements of various courts, it can be articulated that the liability of medicalman in experimentation occurs either on the basis of *contra legem artis* (which includes defiance of profession's rules, regulations and standards) or failure in getting informed consent for the treatment or experimentation. In the absence of a comprehensive legislation the law relating to experimentation on human subjects is not crystal clear.

30. See *Report of Royal Commission on Civil Liability and Compensation for personal injuries*. London, 1979, 1341.

HUMAN ARTIFICIAL REPRODUCTIVE TECHNIQUES: SOME ISSUES AND PROPOSALS

R. A. MALVIYA*

I : Introductory

Human Artificial Insemination

The term "artificial insemination" refers to the medical procedure by which male semen is introduced into the reproductive system (vagina) of a woman (recipient) by means other than copulation for purposes of procreation (reproduction). Some physicians consider the term "therapeutic insemination" more suitable for this procedure. Currently, almost all artificial inseminations are performed per vagina as a relatively simple office technique without anesthesia, with intrauterine, paracervical, intravaginal or cervical cup deposition of precollected semen.¹

Artificial reproduction centres round on four basic procedures² :

- (i) Artificial insemination, which involves appropriate placement of semen by syringe or similar means into a woman's reproductive system, the semen coming from her husband or any donor;
- (ii) *In vitro* fertilization (also called "test-tube fertilization"), which involves laboratory fertilisation of an ovum and its subsequent placement into the uterus of the woman whose ovum it was, or into the uterus of another woman;
- (iii) *In vivo* fertilisation and embryo transfer, which involves insemination of woman (probably by artificial means), removal of the fertilised ovum from her reproductive system by non-surgical means and its subsequent transfer to the uterus of another woman; and,
- (iv) "Surrogate Motherhood", which involves pregnancy produced by one of the three procedures described above or by natural intercourse, in a woman who has undertaken in advance to surrender the child following birth to another person, such as the donor of sperm used for insemination, who intends to raise the child as if it was that person's natural child.

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1. E.L. Sagall, "Artificial Insemination", 1973 *Medico-Legal Annual* 469.

2. B.M. Dickens, "Artificial Reproduction and Child Custody", 1987 *66 Can. Bar Rev.* 49; G.P.R. Tallin, "Artificial Insemination", 1956, 34 *Can. Bar Rev.* 127.

Numerous permutations of artificial conception may be achieved in practice through combinations of these four fundamental procedures, particularly where there is a recourse to gamete (i.e. sperm or ovum) donation. A recent variant of *in vivo* fertilisation involves recovering an ovum from one and transferring it to the fallopian tube of another for possible *in vivo* fertilization by natural means. Another is GIFT (Gamete-Intra-Fallopian Transfer), in which sperm and ova are mixed *in vitro* but placed in fallopian tubes for fertilisation to occur *in ulvo*.³

Terminology :-

For both medical and legal discussions, artificial inseminations are best considered in terms of the source of the donor sperm. Thus, when husband and wife alone are involved in artificial insemination or *in vitro* fertilisation, the term "Artificial Insemination Homologous" or "Artificial Insemination Husband" (AIH) is used. AIH is medically indicated when deposition of the husband's semen within the vagina by coitus is prevented because of an anatomic or psychologic difficulties on the part of either the husband or the wife and occasionally when infertility is due to poor motility, paucity, or otherwise defective sperm cells or too small a volume of the ejaculant.⁴

When a third-party is involved either as a gamete donor or surrogate mother, the term "Artificial Insemination Heterologous" or "Artificial Insemination Donor" (AID) is used. AID is approved by most authorities for psychologically fit, emotionally stable parents under the following circumstances⁵ :

- (i) a 300spermio-absolute male sterility no matter what the reason;
- (ii) oligospermia -i.e., less than 10 to 15 million sperm per cc of of semen with infertility of long duration (years);
- (iii) hereditary disease in the husband making propagation inadvisable for eugenic reasons; or,

3. Dickens, *Supra* note 2, p. 50. The first GIFT technology twins in India were born in a private clinic in Bombay in August 1990 *Times of India* (New Delhi), Sep 7, 1990, p. 5.

4. Sagall, *Supra* note 1, p. 478. In other words, this method is generally resorted to when some weakness due to physical or psychological reasons prevents copulation or when the husband or the wife is impotent (not sterile).

5. *Ibid.* In simple words, this technique is utilised when the wife is fertile but the husband is sterile or impotent, or suffers from a hereditary disease which should not be transmitted to his children, or when there is a serious Rh factor incompatibility. Sterility and infertility are, however, main reasons for resorting to AID.

- (iv) an Rh blood incompatibility expected to cause an abnormal baby in situations where other techniques to overcome such incompatibility are not applicable.

"Pooled" donor sperm refers to a specimen composed of donor semen to which semen from the husband has been added so that if conception occurs it can not be said definitely that the resulting child was not biologically a product of the husband and the term "Artificial Insemination Husband and Donor" (AIHD) is used⁶.

Legal Implications :

AIH rarely results in any severe legal, ethical, moral or religious problems because the genetic, gestational and rearing parents are identical. That is to say, the child is actually the biologic product of both husband and wife, medically, ethically and in the eyes of the law. Its success rates are, however, not encouraging and, therefore, artificial insemination of a wife by a donor who is not the husband (AID) seems to be more common⁷. AID, however, creates many problems in all these spheres because the AID child is genetically linked to a parent outside its own family. Additionally, AID has portent significant psychologic implications to patient, husband, child, donor and physician because the child conceived by this method is not the true biologic offspring of both the husband and wife, although conceived during the tenure of their marriage.

Of the many legal problems inherent to AID, some may be listed as below :

- (i) can the performance of AID be challenged as unlawful or contrary to public policy and good morals, since conception by this method necessarily requires the vaginal introduction of sperm derived from a male to whom the wife is not married. Thus the participants (doctor, husband, donor and wife) theoretically might be charged with aiding and participating in the criminal act of adultery. Therefore, the question is : Does

AID amount to adultery ? Can the nonconsenting husband claim divorce on the ground of adultery or non-consumation of marriage ?

- (ii) Whether the AID practice be declared criminal or be regulated by law ? If to be regulated by law, what minimal substantive and procedural controls should be established over the practice of AID ?
- (iii) Whether the acceptance by a wife an artificial insemination by a donor without her husband's consent should be made a new and separate ground of divorce ? Should it also be a ground for judicial separation ?
- (iv) What should happen if the wife were given AID on husband's initiative without her knowledge as to what was done ? Does it seem unnecessary to give her a specific remedy (on the ground of cruelty) since it is not likely that such a case would arise ?
- (v) Should sterility be ground for nullity of marriage so as to provide, apparently, an alternative to AID ?
- (vi) Whether a wife should be allowed to take proceedings for divorce on the ground that her husband has donated sperm for the purpose of AID without obtaining her consent ?
- (vii) Whether the physician who delivers the AID child and records the husband's name on the birth certificate as the child's father rather than that of the donor, commits a fraud or an illegal act in that he deliberately enters a false statement on a public document and knowingly conceals the identity of the true, biological father of the child ? In other words, whether AID amounts to falsification of birth records within the meaning of criminal statute (s) ?
- (viii) Whether AID child is a legitimate child ? If so, to whom is the paternity or maternity of the child to be attributed ? Can the stranger donor, of the male or female seeds, claim to be the spouse of the accepting donee ?
- (ix) What information about the genetic father, if any, the AID child should be able to obtain ? Should he be entitled to a full disclosure or to a non-identifying information about the donor, ie., to basic information about the donor's ethnic origin and genetic health without compromising the principle of anonymity of the donor ?

⁶ *Ibid*, Children conceived by artificial insemination are popularly referred to as test-tube babies despite the fact that mixing of sperm and egg takes place *in-vivo* and not in test-tube or laboratory. *Ibid*. p. 472.

^{6A} But, nevertheless, some problems may arise, e.g., (i) Whether a wife, who has filed a suit for divorce and continues to pursue it, should obtain a divorce decree if she subsequently conceives through artificial insemination by her husband's preserved semen ? (ii) What would be the social and legal status of an AIH child where a wife, after her husband's death, conceives through artificial insemination by her husband's preserved semen ?

⁷ Ateeque Khan, "Artificial Insemination and Surrogate Motherhood: An Indian Socio-Legal Perspective", 1989, *JILI*, 394.

- (x) What should be the relationship between a child conceived by donor sperm and the legal husband of his mother but not his biologic father? What should be the legal relationship of such a child to his true natural father? Should the latter's indentivity become known? What should be the nature of relation of the AID child with a natural or adopted child of the same family? Would the rule of prohibited degrees be operative on AID child? If so, when, how and with whom?
- (xi) How and from whom the AID child would be entitled to inherit and get support? Can it also be subject to rules of inheritance opposite consenting relatives?
- (xii) Is the woman's non-consenting husband liable to maintain the AID child as its father?
- (xiii) Would it seem logical to impose support liability on the donor when the husband has not consented?
- (xiv) Can some degree of financial support liability be placed upon the physician performing an insemination without husband's consent?
- (xv) What are the physician's legal rights and responsibilities with regard to the performance of artificial insemination? Do specific laws have to be enacted before it is completely valid for a physician to undertake these procedures? In the absence of such laws, can a physician be charged with criminal conduct?
- (xvi) What if something goes wrong with the pregnancy, or the baby is born defective, and the husband had not given his consent. Can the husband sue the physician even though no negligence is alleged?
- (xvii) Whether single (unmarried) women should be covered by an AID legislation and, if so, in what manner? Does a single woman has a constitutional or natural right to procreate? How to protect non-marital children financially? Would it be useful to insist on a donor's obligation to support the child? Does the use of artificial insemination by a single woman call for an expanded definition of family?

Moreover, it will often be critical to make distinctions, usually previously irrelevant, between the genetic, gestational and rearing parents when sorting out individual rights and responsibilities. Indeed, it

is now possible to have "five" parents: a genetic and rearing father and a genetic, gestational and rearing mother.⁸

The developments occurring rapidly in non-coital human reproduction⁹ in the developed countries (especially in North America, Australia and Europe) are bound to prompt medical practitioners and childless couples in India as well.¹⁰ Infact, with the slower entry of artificial method of reproduction in India, the introduction of such method as *in vitro* fertilisation (IVF) and also surrogate motherhood may not be very far as a routine practice in India. No matter what one's view may be on moral, ethical and theological propriety of artificial insemination, there can be no doubt that the medical-legal problems are of basic importance. In future years, many physicians and attorneys will have to concern themselves with the professional aspects of this medical procedure and the numerous ramifications there of.

Some of the legal problems listed above are likely to crop up in a more severe form in this country due to the diversity of family laws; absence of express legislative provisions and judicial precedents¹¹; social

8. Annas and Elias, "The Treatment of Infertility: Legal and Ethical Concerns" 1989, 32 (No.3) *Clinical Obstetrics and Gynaecology* 614; Robertson "Procreation Liberty and the Control of Conception, Pregnancy and Child Birth, 1983, 69 *Virginia Law J.* 405; L. Andrew, *New Conceptions* 1984,
9. Annas and Elias, *Supra* note 8, p 164; Tallin, *Supra* note 2, p. 127. Artificial insemination has now gained widespread medical and law approval. Its use is rapidly growing worldwide, particularly, with the recent expansion of frozen sperm banks; these make commercially obtained donor semen more easily available to prospective applicants than it would be if they were dependent solely upon current list of donors, and make it possible to store a husband's semen prior to vasectomy in case a pregnancy should be desired at a later time because of unforeseen events (e. g., loss of a child and desire for another or divorce with remarriage and desire for a child with a new wife; and, in patients with oligospermia, several ejaculates can be bank-stored and then concentrated to attain near normal sperm count for later insemination, with the chance that the husband might thereby sire his own children).
10. A. V. Subramaniam, "Making Babies by Proxy", *Times of India*, New Delhi 4, 12.8.1973; Paras Diwan, "Technological Niyoga and Nirodh and Social Engineering Through Law", 1980, 22 *JILI* 447; Ashish Nandi, "The Sperm Merchants", *Sunday Review, Times of India*, New Delhi 19.12.1982, p. 4; Gokhale and Gupta, "Would You Like to Rent a Womb?", *Femina* 21 October 8-22, 1983; Agrawal, "Tomorrow's New Brave Babies—A Special Report, *Eve's Weekly* 12-13, June 23-29, 1984; C. K. Parikh, *Textbook of Medical Jurisprudence and Toxicology*, 1979, p. 443; N. J. Modi, *Textbook of Medical Jurisprudence and Toxicology*, 1977, p. 310.
11. Even in the United States of America where IVF is reported to be practiced to a great extent, it is considered as an area uncharted by legal precedents. D. S. Sheriff, "Parental Ethics—An Extension to Fetuses Created in the Laboratory", 1987 37 *Jl. of Obstetrics and Gynaecology of India* 358.

apathy towards the problem; and lack of intelligent public discussion¹². Consequently, one can only speculate the problems and issues. Nevertheless, in order to protect the interests of the AID child, a timely reflection on the various medical-legal ramifications of artificial insemination becomes of utmost significance. Particularly, this becomes important in an era of technologically aided methods of reproduction, freeze thawing of embryos, *in vitro* fertilisation.

It is not the intention of the present study to embark upon a review of moral, philosophical and theological issues at stake, but merely to anticipate and examine some of the legal implications of AID in the Indian perspective and to indicate the legal approach to tackle the problems surrounding it. Of necessity, however, references to foreign experiences have been made and the answers and solutions arrived at in those jurisdictions have also been considered.

II : AID And Consumation of Marriage :

A marriage is actually said to be consummated only when the parties have sexual intercourse, with full or atleast partial penetration, after solemnisation. However, if a wife is inseminated artificially with the husband's sperm and gives birth to a child, does the conception or birth of the child constitute consummation of marriage? In an English case^{12a}, *R.E.L. v. R.E.L.*, where the wife had become pregnant, by artificial insemination with the husband's seed, the question before the court was : Whether wife's recourse to artificial insemination and subsequent birth of the child amounted to sufficient approbation of marriage so as to prevent her from seeking annulment of her marriage on the ground of husband's inability to consummate it. Rejecting this plea, the court granted the decree of nullity of marriage. It remarked : "It would be shutting one's eyes to realities to expect the marriage with its background of failure and neurosis to have become an effective marriage."

The issue whether artificial insemination amounted to consummation or not was raised again in *Slater v. Slater*.¹³ In this case AID was resorted to but was unsuccessful and ultimately, a child was adopted. It was held that the attempted insemination could not constitute consummation and that the doctrine of approbation could not be applied to defeat the wife's claim despite insemination and adoption.

12. Factors, such as, religious taboos, lack of public recognition of the problem (i.e. public awareness that there exists a problem), and underivable sociological consequences of AID offsprings, encourage social apathy and prevent discussion.

12a. (1949) *All. E. R.* 141.

13. (1953) *Probate Division* 235.

Probably it was in this background that the Departmental Committee on Human Artificial Insemination recommended that where a live child has been born to a woman, either as a result of AIH or AID, to which the parties to the marriage have consented, this should be a bar to proceedings by either spouse on the ground of impotence (of either of them).¹⁴

In India, the question whether artificial insemination amounts to consummation of marriage can be answered according to the personal context in which it is raised. Thus under S. 32(a) of the Parsi Marriage Act, 1936, non-consummation within one year of marriage owing to wilful refusal of the defendant is a ground for divorce. On the same ground, with no specific time limit, either party can sue for a decree of annulment of marriage under S. (25) 1 of the Special Marriage Act, 1954. Under S. 12(1) (a) of the Hindu Marriage Act, 1955, the wife can seek annulment of marriage on its non-consummation due to the impotence of the husband. The issue acquires an additional complexity in Muslim law as therein consummation is presumed in certain cases of valid retirement.¹⁵ Valid retirement has the same effect as actual consummation of marriage. However, for a triply divorced couple to remarry and for the option of puberty to lapse, actual consummation of marriage is required.¹⁶ In view of these differing consequences which obtain in Muslim law after presumed and actual consummation of marriage, the status of the practice of artificial insemination remains speculative.

However, these provisions under different family laws attach immense significance to the fact of consummation. Though in the absence of organic intercourse, it would be hard to believe that a marriage is physically consummated. Nevertheless, if a marriage is liable to be annulled on the ground of non-consummation, then, the purpose and object of insemination would be defeated.¹⁷ Therefore, it seems advisable to regard artificial insemination, in any of its forms, as constructive consummation of marriage between the adoptive couple regardless of the law to which they are subject, provided the artificial insemination is performed with the consent of the spouses. The parties should be stopped from

14. R. S. W. Pollard, "Report of the Departmental Committee on Human Artificial Insemination", 1961, 24 *Modern Law Rev.* 160.

15. When the husband and wife are alone together under circumstances which present no legal, moral or physical impediment to marital intercourse, they are said to be in valid retirement. A.A.A. Fyzee, *Outlines of Mohamadan Law* 3rd ed. (1964), pp. 92, and 102-104.

16. *Ibid.*

17. e.g., the purpose of relieving the parties of the frustration of not bearing a child and removing a principal cause of disharmony in the family.

pleading actual or physical non-consumation of marriage in order to avail any matrimonial remedy on that ground. However, in cases of wife's resort to AID without her husband's consent, the husband should not be deprived of the plea of non-consumation of marriage.

III : Legality of AID :

In several civil actions for divorce, the courts have faced the question as to whether the practice of AID can constitute adultery and have reached conflicting decisions¹⁸. The confusion, probably, results from attempts to apply traditional concept of adultery to a scientific innovation that early common law jurists never had occasion to consider.

A. Adultery By the Recipient :

The modern court history involving AID began in Canada with the case of *Orford v. Orford*¹⁹. In this action a woman attempted to obtain alimony from her divorced husband. The husband's defence was that his former wife had committed adultery in that she had a child of which he was not the biologic father. The wife, however, contended that because the conception was the result of an artificial insemination she was not an adulteress. The court found that pregnancy had occurred as a result of sexual intercourse with a man other than the husband and that the wife's contention that she was impregnated through AID (without husband's consent) was not to be believed. The court stated that the essence of the offence of adultery consisted, not in the moral turpitude of the act of sexual intercourse, but in the voluntary surrender to another person of the reproductive powers or faculties of the guilty person and any submission of those powers to the service or enjoyment of any person other than the husband or the wife came within the definition of adultery. The court further stated that sexual intercourse was adulterous because in the case of the woman it involved (the possibility of introducing into the family of the husband a false strain of

blood. Any act on the part of the wife which did that, would, therefore, be adulterous.²⁰

In 1924, the British House of Lords concurred with a ruling that conception of a child by man other than the husband constituted adultery and that, therefore, the resulting offspring was illegitimate.²¹

While in *Hoch v. Hoch*²², a soldier sued for divorce after return from military duty to find his wife pregnant. While the wife's allegation that conception had been achieved through AID was rejected, the court suggested that AID would be insufficient for divorce on the ground of adultery. But nine years later another Illinois court stated in a declaratory judgement that heterologous artificial insemination, without or with consent, is contrary to public policy and good morals and constituted adultery on the part of the mother.²³

In *Mac Lennan v. Mac Lennan*²⁴, the court carefully analysed the English law on adultery and arrived at a different conclusion. Lord Wheatley found that adultery required two parties physically present and engaging in the sexual act at the same time, with some degree of penetration in the female organ by the male organ²⁵. Noting that these requirements were not fulfilled by AID, he held that the practice did not constitute adultery, whether the husband consented or not.²⁶

The decision of Lord Wheatley in *MacLennan* case was the subject of debate in the House of Lords in 1958²⁷ as a result of which a Departmental Committee was appointed to enquire whether, and if so, what changes in law were necessary, in view of this practice. The Committee expressed the view that a clear distinction be drawn between artificial insemination and adultery. It endorsed the view of the Royal Commission on Marriage and Divorce, 1951-55, that artificial insemination of wife without the consent of her husband be made a new and separate ground of divorce or judicial separation.²⁸

20. *Ibid.*, p. 25.

21. *Russel v. Russel*, (1924) A. C. 687, p. 148.

22. As cited in Chandler, *Supra* note 18, p. 500.

23. *Doornbos v. Doornbos*, (1954) No. 54 S. 13, 875, *Super. Ct. Cook County*.

24. 1958 Sess. Cas. 105; 1958 Scots L.T.R. 12.

25. 1958 Sess. Cas. 113; 1958 Scots L.T.R. 17.

26. *Ibid.* p. 114; 1958 Scots L.T.R. 18.

27. (1957-58) 207 *Parliamentary Debates (Lords)*, 926-1016.

28. The Archbishop of Canterbury, while disapproving the practice of artificial insemination, referred to the findings of a Church Commission on Human Artificial Insemination which had stated : AID involves a breach of marriage. It violates the exclusive union set up between husband and wife. It defrauds

18. No legislative body has declared AID illegal though bills to prohibit the technique have been introduced in Minnesota, 1949 and Ohio, 1955. Judges have condemned it as contrary to public policy and good morals. Several commentators have recommended that it be prohibited and that it be made a criminal offence for both physician and donor. Others have argued that to make AID a criminal offence would only drive the practice underground and beyond the control of responsible medical practitioners. The only present indication of governmental approval of AID is found in the Oklahoma Statute, 1967 and the New York City Health Code, 1959. Harry S. Chandler, "Legislative Approach to Artificial Insemination", (1967-68) 53 *Cornell Law Rev.* 498-499.

19. (1921) 58 D.L.R. 251 49 *Ontario L.R.* 15.

B : Adultery By the Donor :

Whereas the *Orford* characterisation of adultery—a surrender of reproductive faculties—may have some validity in the case of a wife inseminated without her husband's consent, it might seem unreasonable to apply it to a donor accused of that offence by his wife. Although his reproductive powers are utilised by another, no spurious heir is introduced into his family, nor is the moral turpitude of sexual intercourse outside the marital relationship present. Such a line of reasoning, however, ignores other interests of the donor's wife. The donor's children by other woman may be repugnant to his wife regardless of the method used²⁹. To protect all the parties concerned we propose that the law should require the consent of the donor's wife as well as the consent of the recipient's husband. This would serve to prevent any friction that might arise as a result of the AID procedure. There is, however, no reason to require either the donor or the recipient to be informed of identity of the other. Anonymity of donors and recipients prevents problems that arise otherwise, such as transfer of wife's affections from her husband to the biological father of her child and the possible opportunity for blackmail by the donor.³⁰

Under the Indian law the question of adultery does not arise because under S. 497 of the Indian Penal Code, 1860, sexual intercourse must be present. Therefore, neither the recipient nor the donor would be guilty of adultery because there is no physical union in the form of coitus. Under the Indian law, but for the consent or connivance of her husband, commission of sexual intercourse with a woman by man, having knowledge or reasons to believe that she is another's wife, makes him alone³¹ guilty of the offence of adultery.³² To such a sexual intercourse,

the child begotten and deceives both his putative kinsmen and society at large. For both donor and recipient the sexual act loses its personal character and becomes a mere transaction. For the child there must always be the risk of disclosure, deliberate or unintended, of the circumstances of his conception. Therefore, AID is judged to be wrong in principle and contrary to Christian standards. He also agreed with the commission's recommendation for framing of legislation to make the practice a criminal offence. L. B. Cooper and Drewrey (ed.), *Law and Morality*, 1976, 174. It is deception by the donor with the wife and by the doctor with the donor. *Ibid.*, p. 175.

29. Chandler, *Supra* note 18, p. 502.

30. Guttmacher, "The Role of Artificial Insemination in the Treatment of Sterility", (1960) 15 *Obst. and Gynaec. Survey* 767, 775; Guttmacher, "Artificial Insemination", (1962) 97 *Annals of N. Y. Academy of Science* 624; Logatto, "Artificial Insemination: Ethical and Sociological Aspects", (1955) 1 *Catholic Lawyer* 272; Tallin, *supra* note 2, p. 18.

31. 2. A. Aziz v. State of Bombay, AIR 1954 SC 321.

32. S. 497 read with Explanation 1 to S. 375, I.P.C. (1860).

penetration (even though slightest), irrespective of ejaculation, is an essential constituent.³³ Even under the Hindu Marriage Act, 1955, in the absence of any special definition, adultery means consensual sexual intercourse between married person and another person of the opposite sex during the subsistence of a valid marriage.³⁴

We support the view that AID does not constitute a criminal act of adultery, even where it is resorted to without husband's consent because there is no physical act of union and no penetration.³⁵ Besides, a number of other differences are also obvious.³⁶ Also, a number of absurdities and complications would arise if it were to be treated as adultery. For example :

- (i) Would the donor be an adulterer ?
- (ii) Would the woman be guilty of committing adultery with a dead man, if the seed is used after the donor's death ?
- (iii) What would be the consequence(s), if the doctor performing the technique were a female physician ? and,
- (iv) A very queer situation would arise if the husband himself transmits by natural act a third person's seed to his wife.³⁷

No statutory approval appears to protect the wife inseminated by AID from her consenting husband's subsequent allegations of adultery, regardless of how the offence is defined. Some of the various reasons supporting public condemnation of adultery are :

- (i) introduction of false strain of blood or an unwanted heir into the family;
- (ii) disruption of the family system;
- (iii) alienation of wife's affections; and,
- (iv) burdening the husband with the support of an unwanted child biologically foreign to him.

33. *In Re Anthony*, AIR 1960 Mad. 308.

34. *Geetabai v. Fatto*, AIR 1966 MP 30.

35. Bartholomew, "Legal Implications of Artificial Insemination" (1958) 21 *Modern Law Rev.* 236; *Dennis v. Dennis* (1955) 2 *All E. R.* 51. For contrary view see *supra* note 2, pp. 1-166.

36. Adultery is normally a clandestine activity which, it is hoped, will not be known to the other spouse where as AID is generally undertaken with the knowledge and approval of that spouse. It is unusual for adultery to be committed in order to produce a child, but this is the only aim of AID. Lastly, adultery is normally regarded as indicative of marital breakdown, whereas AID is thought of as an evidence of marital disability. Infact, they are antithesis of each other.

37. Kusum, "Artificial Insemination and the Law", (1977) 19 *JILI* 294.

These reasons are rendered inopposite by the husband's consent to AID. Indeed, divorce based on adultery should be barred by construing the husband's consent as connivance.

Where a wife is impregnated through AID without her husband's consent, the birth of a child so conceived might be as objectionable to the husband as one resulting from an adulterous sexual intercourse. If such a situation is presented in a divorce petition, the courts will have to face the difficult task of :

- (i) either burdening the husband with an unwanted child and an untrustworthy wife;
- (ii) finding adultery by the wife where there has been neither the sexual intercourse required by the definition of that offence nor moral turpitude implicit in it; or
- (iii) finding that resort to AID without consent constitutes extreme cruelty to the husband and thus justifies divorce.

It cannot be denied that AID without husband's consent is very likely to affect family peace and harmony. The presence of another man's child is bound to create emotional conflicts and tensions in the family. Therefore, it would be reasonable to provide matrimonial relief to the husband if the wife resorts to AID without his consent. AID without husband's consent should be made a separate ground for divorce, that is to say, it should also be a ground for judicial separation.

But, what should happen if the wife were given AID on the husband's initiative without her knowing as to what was done? Would it seem unnecessary to give her a specific remedy since it is not likely that such a case would arise? However, if it did, the wife could seek a divorce on the ground of cruelty.

Again, whether sterility should be a ground for nullity of marriage, apparently, as an alternative to AID? We think that any such proposal ought to be rejected for two reasons : (i) that it would be difficult to obtain satisfactory evidence of sterility; and, (ii) that proposal assumes that procreation of children is the principal object of marriage. No doubt it is an important object, but it can not be regarded in itself as the main object of marriage.³⁸

Lastly, whether a wife should be allowed to take proceedings for divorce on the ground that her husband had given semen for the purpose of AID without obtaining her consent? It is difficult to see why a wife should seriously feel injured in such circumstances and it would not often

38. Pollard, *supra* note 14, p. 159-160

occur that a husband would behave in this way. If he did, it might well reflect some instability in the marriage. Therefore, a legislative provision does not seem necessary as it would be difficult to prove whether semen was given for medical analysis or for AID. If a marriage is unstable, then let the general law of divorce be changed to deal with it.

To sum up : the problem in India is not so serious since there appears not much significant number of births per annum by AID at the moment, but to invoke criminal law against AID might lead to its underground practice. Thousands of illegal abortions take place every year and the deplorable consequences to the health of the women involved and the impossibility of preventing abortion are perhaps sufficient warning of the undersirability of making actions criminal which are not at least generally condemned. We do not want to encourage AID, but, in stable marriages, it may be properly employed in small numbers of cases provided both the applicants and donors are carefully and expertly selected. The governing consideration should be the opportunity for happiness and security which the couple can offer a child conceived with the aid of a donor.

However, it is to be borne in mind that until any child born to a woman and accepted as one of the family by her husband is made legitimate, the status of a number of children will be in doubt. If the practice of AID increases however, then, there are going to be a growing number of children born in this way. It is not a good thing that a child's status should be in any doubt. Therefore, making a legislative provision in this regard becomes a matter of increasing importance.

IV : AID Child

A : Legal Status :

Is a child conceived by AID, with husband's consent, in effect a member of the family of the father and mother? That is to say, is the AID child legitimate?

Where a child is born as a result of AID to which the husband has consented, it should remain illegitimate. The Departmental Committee has advocated four arguments against making such children legitimate.³⁹

- (i) That although the child would be relieved of the stigma of illegitimacy, he would not be given complete security since

39. *Ibid.* p. 161,

he would still be liable to discover that he was probably not, biologically, the child of his supposed father;⁴⁰

- (ii) That it would bring the child certain material advantages but encroach seriously on the rights of other members of the husband's family and interfere with the principle of hereditary succession (i.e. succession through blood descent) which is at the basis of society;⁴¹
- (iii) To make AID children with consent legitimate would constitute a degree of official encouragement of AID and would expose AID children to many dangers.⁴²
- (iv) Finally, legitimisation of children conceived by AID would involve an unprecedented change in the concept of legitimacy.⁴³

Most authorities agree that the AID child is illegitimate solely because his natural parents are not married to each other. The first court ruling in U. S. A. involving AID was reached in 1948 in *Strand v. Strand*.⁴⁴ Here the court rejected the wife's contention that her AID offspring was illegitimate (as the husband was not the father) and granted visitation privileges to the husband who had consented for AID. The court, however, predicated on the assumption that the procedure had been performed with the husband's consent, ruled that the child had been potentially adopted or semi-adopted by the husband. Thus, he was entitled to same rights as those acquired by a foster parent who had formally adopted a child.⁴⁵ The court also ruled that the child was legitimate. Consider the confusion in the minds of the AID parents who had relied on *Strand* decision when *Gursky* decision was announced fifteen years later (*infra*).

A favourable legal climate for AID was voiced by Illinois superior court in *Ohlson v. Ohlson*.⁴⁶ In an action for divorce, Mrs. Ohlson alleged that her husband had no visitation rights since her child had

40. But, why should this prevent him being given atleast the legal security of legitimacy? Further, is the concept of family rigidly confined to the biological children of both parents?

41. The child conceived by AID with consent is infact a member of the family and, therefore, the question of interference does not arise.

42. If it is admitted that legitimisation by subsequent marriage after an adulterious union is not an appreciable encouragement of extra-marital intercourse, then, why the legitimisation of children conceived by AID, should, therefore, be held to officially encourage AID cannot be understood.

43. But the fact tha a change is unprecedented is not a reason for not making it.

44. (1948) 78 N. Y. S. 2d 390.

45. Bartholomew, *supra* note 35.

46. (1955) No. 54 S. 138, 875, *Super. Ct. Cook County*.

been conceived from donor sperm. Although not directly considering the issue of AID, the court upheld an axiomatic legal principle: "When a child is born within a marriage by whatever legal method, there is a legal presumption that both marriage partners are his parents."

Yet, on the other hand, a different opinion was reached in *Doornbos v. Doornbos*.⁴⁷ In this case, the wife brought petition for divorce and custody of the child born to her as a result of AID, consented to by the husband. A question before the court was: Whether such a child was legitimate and belonged to the mother only? The trial judge granted the divorce decree, but denied the husband visitation rights and custody of the AID child, declaring that AID, with or without consent of husband, was contrary to public policy and good morals and constituted adultery on the part of the mother. A child so conceived was not a child born in valid wedlock and was, therefore, illegitimate. As such, it was the child of the mother alone and the husband had no right or interest in the child, not even that of visitation. In a 1963 annulment action, *Gursky v. Gurpy*,⁴⁸ a New York court held an AID child, consented to by husband, was illegitimate, stating that the disinclination of the legislature to legitimise AID children indicated its unwillingness to disturb the application of the historical concept of illegitimacy to such individuals.

Consequent upon such conflicting judicial decisions, some American States have attempted legislation to deal with the status of the AID child. The provisions vary from state to state. But in essence, they legalised the practice of AID and legitimised the children so conceived by providing that where married woman was artificially inseminated with her husband's consent, the husband was deemed to be the father of the child. They also established procedural controls over the practice of AID. These enactments solved the problem of children born after the passing of the Act. However, only, in one state (Kansas) the legislation was retrospective. Therefore, the status of children born before the commencement of these Acts continues to be doubtful.⁴⁹

47. (1954) No. 54 S. 13, 875, *Super. Ct. Cook County*, appeal dismissed 12 Ill. App. 2d 473 (1956).

48. (1963) 242 N. Y. S. 2d 406, 39 Misc. 2d 1083, *Super. Ct.*

49. For the American legislative response and the current state of the law, see, Chandler, *supra* note 18, pp. 497-513; Sagall, *supra* note 1, pp. 474-75; Dominic Vetri, "Reproductive Technologies and United States Law" (1988) 37 I.C.L.Q. 505-534. For the English Law, see, Jacqueline A. Priest, "Assisted Reproduction: Developments in England" (1988) 37 I.C.L.Q., 535-550.

Another problem posed by these provisions, except the legislation in Oregon, is the determination of the consequences of the refusal by the husband to consent to AID.⁵⁰ A court might decide that the husband is to be deemed as father, even though he has not consented. But it would seem unfair to saddle a husband with the paternity of and responsibility for, a child if his wife has resorted to AID without his consent and perhaps against his wishes. On the other hand, it would be unfair to the child if the husband denies paternity after having brought the child up as his own for many years. In such a case he might be faced with the doctrine of estoppel (personal bar) which would defeat his claim of absence of consent.

Only a few European countries, like Netherland, Portugal and Switzerland, have legislations, having a bearing on child's status which prevent the husband from denying paternity of a child if he has consented to his wife's artificial insemination.⁵¹ Recently, the English Law Commission has recommended that legislation should be framed deeming the husband of the mother to be the father of the AID child unless it is established that he has not consented to the AID technique which resulted in the conception of the child.⁵²

B : Support Obligations of Husband and Donor :

The Departmental Committee has recommended that a husband who has consented to his wife receiving AID should be required by law to maintain any child who may be born as a result thereof.⁵³

Two New York courts have held consenting husbands liable for support payments despite the child's illegitimacy. In *Gursky v. Gursky*,⁴ the parties discovered after marriage that the husband was impotent. They agreed to AID and a child was so conceived. On the birth certificate the husband was listed as its father. Subsequently, the marriage was annulled on the ground that it was not consummated. The court found in the husband's express consent, followed by wife's concurrence and submission to AID, an implied contract to support the child. Liability was also based on the alternative ground of equitable estoppel. In

50. Chandler, *Ibid.*

51. *Supra* note 7, p. 403 However, a draft Recommendation of Council of Europe in 1978 provides that the child shall be considered as the legitimate child of the woman and her husband, if he consents to artificial insemination. No one shall be able to challenge the paternity solely on the basis of artificial insemination. *Ibid.*

52. *Ibid.*

53. *Supra* note 14, p. 161.

54. *Supra* note 48,

Anonymous v. Anonymous,⁵⁵ a husband had consented to his wife's therapeutic impregnation. The wife claimed for alimony. The husband pleaded that the child was illegitimate. The court rejected the plea and awarded alimony on the ground that consent carried with it an implied promise to furnish support for the resulting progeny. Thus, the present case also relied on the implied contract theory to impose liability for support.

In *People v. Sorenson*,⁵⁶ a husband had consented to AID after he had been medically determined to be sterile. A male child was conceived and born. After four years the couple separated and later were divorced. Mrs. Sorenson retained the custody of the child and agreed to support him. When Mrs. Sorenson at a later date became ill and disabled, she applied to the state of California for support of the child under the Aid to Needy Children Programme. The District Attorney brought a criminal action against Mr. Sorenson to force him to provide for the child's support as specified in the California Penal Code. The Municipal Court found him guilty of non-support and ordered to make support payments to a child born to his wife consequent to AID after his consent during wedlock. On appeal, the decision was sustained by California's Supreme Court. The Court held that a reasonable man who, because of his inability to procreate, actively participated and consented to his wife's AID knew that such behaviour carried with it legal responsibilities of fatherhood and criminal responsibility for non-support. However, the Court held that the husband was not the child's father for the criminal statute.

Apparently, no court has imposed liability for support of an AID child on a non-consenting husband.

C. Inheritance Rights :

Apparently no court has determined the inheritance rights of an AID child. In *Gursky*⁷ and *Strand*⁵⁸ cases the courts expressly declined to consider this question. In *Doornbos*⁵⁹, the Court's statement that the husband had no right or interest in the AID child suggests that the child has no right or interest in the estate of the husband. Whether an illegitimate person may inherit from his natural father under the intestacy laws is not the issue in considering the AID husband's estate, since it is conceded that the husband is not the child's biological father.

55. (1964) 246 N.Y.S. 2d 886, *Sup. Ct.*

56. (1968) 66 Cal. Rptr. 7, 437 p 2d 499; B. J. Davies, "Family Law : Recent Cases", (1973-74) 23 *Buffalo Law Rev.* 550.

57. *Supra* note 48.

58. *Supra* note 44.

59. *Supra* note 47.

In India the legitimacy of a child born during the subsistence of a valid marriage is presumed.⁶⁰ For all legal and practical purposes the husband can be regarded as the father of an AID child, unless he proves his non-access and absence of consent to his wife for AID. Some Indian statutes have conferred legitimacy on the offspring of void and voidable marriages.⁶¹ Whether these provisions can be extended to children born by AID without husband's consent is uncertain however, as these provisions have not been designed keeping in view the issue of artificial insemination. Therefore, we propose that consent for AID by husband should accord a legitimate status to the resulting progeny.

However, a declaration of legitimacy by law would raise the presumption that the normal pattern of inheritance will operate within the family. This will secure the child's right to share in the husband's estate. An AID child is comparable with an adopted child and therefore a comparable right of inheritance granted by law to the adopted child (in order to equate his status to that of natural child⁶²) be also granted to the AID child. The courts may, thus, equate such a child to an adopted child until an express legislative provision is made with regard to artificial insemination.

The basic reason for social distinction between AID child and natural child, probably, might rest on the concept of monogamous marriage, concern for the stability of the family and aversion to illicit sex. These policies do not appear to be violated in case of AID child who was brought in this world only after thorough planning, in contrast to the lack of foresight that results in the birth of most illegitimate children. It is illogical to subject the individual produced through positive efforts to the same stigma of illegitimacy as the unwanted, unplanned child conceived and born out of a valid wedlock. Therefore, the law, to avoid any uncertainty and the possible burden of illegitimacy, must declare AID children legitimate in all respects like the naturally conceived legitimate child of husband and wife. The legislators have to demonstrate their concern for the inequity of applying the illegitimacy concept in the AID situation. This could have important effects on the development of AID. For example, childless couples may be less hesitant to use the technique if the child's legitimacy is assured. Law may also

eliminate litigation of child's legitimacy. All parties will thus be spared the embarrassment that results from publicity of the legitimacy determination.

As to the liability for support of an AID child on a non-consenting husband, we submit that no such obligation should arise since the husband is not the natural father of the child and has not induced any reliance on the part of his wife prior to conception. Courts can find them illegitimate and thereby can relieve the husband of the burden of support. On the other hand, the husband probably could be held liable, if subsequent to child's conception, he contracts with his wife for support of the child or if the husband represented to the child that he was his father, that the husband intended that his representation be accepted and acted upon by the child, that the child relied upon the representation and treated the husband as his father and gave his love and affection to him, that the child was ignorant of the true facts.

If the husband is liable for support when he has consented to AID, it might seem logical to impose liability on the donor when the husband has not consented. Imposition of this obligation would deter insemination without the husband's consent. But such donor liability poses special problems :

- (i) Because of the secrecy normally maintained in AID, the wife will have no knowledge of the identity of the donor;
- (ii) The physician may have kept no records matching donors with recipients;
- (iii) The threat on support liability would compel the donor to ascertain the identity of the recipient in order to assure himself that the husband had consented, that the recipient and her husband would adequately support the child and that he would be legally protected in subsequent proceedings; and,
- (iv) Disclosure of the identities of the donor and recipient might lead to such problems as transfer of the wife's affections from husband to donor and increased feelings of inferiority on the part of the husband.

Therefore, as a compromise solution, it may be suggested to place some degree of liability for support on the physician performing an insemination without husband's consent. In this way, the secrecy of identities would be maintained and the child would still have a source of support. Moreover, such a provision would effectively discourage the practice of AID without husband's consent, since few medical practitioners would subject themselves to the potential support liability.

60 S. 112 of the Indian Evidence Act, 1872.

61. S. 16, Hindu Marriage Act, 1955; S. 26, Special Marriage Act, 1954, as amended by the Marriage Laws (Amendment) Act 1976; P. C. Bedwa, "Problem of Illegitimate Children Under Various Personal Laws in India", (1984) 11 (3) *Indian Bar Rev.* 337.
e.g., S. 12, Hindu Adoptions and Maintenance Act, 1956

As to the rights of child with respect to inheritance from donor, we propose that where the husband has consented to AID, the law should sever all rights and responsibilities between the child and its natural father. Such is the effect of an adoption decree. But if the husband has not consented to AID and if the child is held illegitimate, then the child might arguably be entitled to share in the donor's estate to the same extent that other illegitimate children are allowed by law to share in the estates of their natural father.⁶³

To recapitulate : All arguments against AID children amount to prejudice against AID. In actions which affect children, children must come first. AID should not be made a criminal offence and, as a corollary, a child conceived by AID with consent should have full legitimacy because a community, if prepared to tolerate AID, has a duty to protect the interests of the resultant children. In case of a child conceived by AID with consent, the husband should, for purposes of registration of births of such a child, be deemed to be the father of the child and the concept of legitimacy extended to cover a child born as a result of AID with consent. This would make the consenting husband liable for financial support of the AID child. However, a declaration of legitimacy by law will secure the child's right to share in the husband's estate. No liability for support payment should arise in case of a non-consenting husband. Where the husband has not consented, it might seem logical to impose support liability on the donor and to grant the AID child a right to share in the donor's estate. It should not be difficult to place some degree of liability for support on the physician performing the insemination technique without husband's consent.

V : Proposed Statutory Controls Over the Practice of AID :

Should the legislature decide to legalise AID and legitimise the offspring, the following conditions, with respect to the use of AID, should be considered :

- (i) *Authorisation* : That the insemination should be performed by a qualified physician.⁶⁴

63. The objections to holding the donor liable in these circumstances parallel the arguments against his liability for support of his child.

64. Requirements (i) and (vii) are meant primarily to produce reliable evidence of the event and of the husband's consent in the court room if need should arise.

- (ii) *Consent, Execution and Acknowledgement* : That the husband⁶⁵ and wife⁶⁶ should request and consent to the use of AID technique and that the consent of the husband and wife desiring the utilisation of AID technique should be executed and acknowledgement by both husband and wife and the person who is to perform the technique.
- (iii) *Consent of Donor's Spouse* : That if the donor is married, the physician should obtain the consent in writing of the donor's spouse for sperm donation.⁶⁷
- (iv) *Examination of Donor and Recipient* : That the serum, semen and general physical conditions of the donor and the recipient should be examined.⁶⁸
- (v) *Disqualification of Donor* : That a person affected with venereal disease, tuberculosis, brucellosis or having any congenital disease or defect known to be transmissible by his genes should not be used as a donor of seminal fluid for artificial insemination.⁶⁹
- (vi) *Maximum use of Donor Sperm* : That a limit should be placed on the number of pregnancies by an individual donor⁷⁰.
- (vii) *Records and Contents* : That a record of the following should be kept by the physician performing the AID technique :
- names and addresses of the physician, donor and recipient;
 - written consent of the husband, wife and physician;
 - written consent of the donor's wife, if any;
 - results of medical examination and serological and all other tests; and,
 - date of artificial insemination.

65. Husband's consent is necessary in case there should later arise charges of adultery or question of the legitimacy of the child in issues of divorce, separation and inheritance.

66. Otherwise the accomplishment of AID might be held a criminal assault and battery and possibly rape if done without knowledge of the wife at the request of the husband.

67. So as to avoid legal disputes because her marital interests may be affected by the donation.

68. This requirement lays emphasis on technological aspects.

69. So as to avoid possibility of transmission of any genetic defect or disorder.

70. This will reduce the danger of incestuous marriages,

(viii) *Paternity* : That the Paternity should always be reported on the hospital records and on the birth certificate as deriving from the legal husband, and never from the donor, even though the former is not the true biologic father.

(ix) *Severance of Legal Relations* : That any legal relation between the AID child and the donor should be severed⁷¹.

(x) *Confidentiality* : That the records kept by the physician should not be subject to inspection by persons other than those authorised and a person having access to the records should be placed under a duty not to divulge the the identity of persons to whom records relate (i. e., non- disclosure of the identity of the donor and the recipient couple and vice versa as well as the results of AID to the donor)⁷².

(xi) *Selection of Donors and Evaluation of Couples to Determine Their Fitness for Parenthood* : That the selection of donors and evaluation of couples should be conducted by team comprised of a physician, a psychiatrist and a social worker or lawyer.

(xii) *Restricted Availability of Records to Public* : The relative secrecy of AID and the desire to conceal infertility are factors often important to couple preferring AID to adoption.⁷³ That, therefore, the written consent should not be open to general public and that the information contained therein may be released only to the persons executing such consent or to persons having a legitimate interest therein as evidenced by a specific court order.

The secrecy is further enhanced by the usual practice of listing husband and wife as parents on the child's birth certificate. However, listing of husband and wife as natural parents of AID child might raise the issue of falsification of public records, which may possibly lead to

71. It is important to break the legal connection with the donor expressly because even though the donor waives any rights, the wife and husband accept the child, the child might not otherwise be precluded from establishing the filiation with the donor. Therefore, it is wise for any artificial insemination legislation to sever legal connection between the child and the donor unless the donor and mother have agreed in writing to the contrary. This allows for a situation where the single (unmarried) women and the donor can agree that the donor will have a role as a father and provide for rights and responsibilities.

72. So as to avoid chances of any inconsistent claim.

73. Verkauf, "Artificial Insemination—Progress, Polemics and Confusion: An Appraisal of Current Medico-Legal Status", (1966) 3 *Houston Law Rev.*, 291.

criminal prosecution.⁷⁴ The undermining of reliability of public records might be advanced as a further argument against AID.⁷⁵ However, legislators have accepted that possibility in the case of the adopted child. There is no reason to follow contrary procedure in the case of AID, especially in the light of the established practice of concealing the donor's identity.⁷⁶

VI. Conclusions

We conclude that confusion and uncertainty surround the artificial insemination (AID). It confronts legal doctrines with novel issues. It exposes the physicians, parents and children to a myriad of potential legal problems. There is no statutory direction for those who must tread these muddled legal waters. Furthermore, the absence of guiding case law compounds the many uncertainties of the legality of AID as well as the legitimacy and legal status of children conceived thereby.

The legal questions concening AID must be resolved by legalising the use of the technique and by legitimising the children so produced provided the husband has consented. Legitimation eradicates the different treatment of AID children and naturally conceived legitimate children with respect to inheritance and support. Therefore, legislative guidelines are obviously needed to clarify the legality of artificial insemination and to answer the key legal questions raised by the procedure.

The last decade has shown remarkable medical achievements that promise offspring to couples for whom child bearing was previously impossible. However, the primary focus of social and legislative policy formation should be on protecting the interests of the child, even if their protection sometimes comes at the expense of some infertile couples and some gamete donors or vendors. This policy will help to protect the basic societal values and can provide the non-coital reproduction with a societal legitimacy.

74. G. Williams, *The Sanctity of Life and Criminal Law* 1957, 127; Holloway, "Artificial Insemination: An Examination of Legal Aspects", (1957) 43 *Am. Bar Assn. J.*, 1090.

75. Logatto, *supra* note 30, p. 269; Rice, "AID—An Heir of Controversy", (1959) 34 *Notre Dame Lawyer* 519.

76. Williams, *supra* note 74, p. 120.

ARTIFICIAL INSEMINATION : INDIAN PERSPECTIVE

A. H. ANSARI*

Introduction

To have a child is a psychological urge of a marriage couple. Also, there is a desire to perpetuate the family lineage and security in the old age. Apart from these Predominant secular reasons, there are religious reasons also, e. g. : a Hindu strives for a male child for funeral rites, etc. and preserve the continuance of lineage; for a Muslim children are *Sadqa-e-Jarih* (*Sawab* goes to the lineal ascendants).

Apart from the natural means of procuring children, the Medical Science has added to it the artificial insemination. Artificial insemination (AI) of human is a technique where by semen is introduced in the vagina, cervical canal, or uterus of a woman by mechanical means for the purpose of inducing pregnancy.¹ This practice in animals is not new; it started in 1707 and in view of its real advantage in improving the breed of the animals it has been used at large scale in animal husbandary. Among humans some successful experimentations were done in the later nineteenth century, but due to public indignation it could not be carried forward. It was in 1909 onwards, when, inspite of public resentment, artificial insemination could be adopted by a few couples for procuring children. Presently, it has been accepted in European Countries and America as an alternate means for procuring children, and it is being used there on a large scale. Although the exact figure, due to secrecy, is not known, the estimated number runs into millions.²

In India resort to artificial insemination is scanty. It has been practised in the cities having cosmopolital culture, e. g., Bombay. In Bombay some sperm bank have come up. It suffers from social non-acceptance, but its acceptance will increase. There are three types of artificial insemination, which are differentiated according to the source of the semen : (1) Homologous Artificial Insemination or Artificial

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1. Dienes, "Artificial Donor Insemination : Perspectives on Legal and Social change", (1968) 34 Iowa L. Rev. 253.
2. There are Sperm Banks and recognised centers and doctors are there to perform the insemination.

Insemination where the husband uses his own semen (AIH); (2) Heterologus Artificial Insemination or Artificial Insemination where the sperm of a man other than that of the husband, i. e. third party donor is used (AID); and (3) Combination of Artificial insemination where the sperms from both the husband and a donor are used (AIC). People resort to artificial insemination when there is *inability* or *unwillingness* to have a child by the natural means. Inability implies sterility, impotency or physical defects preventing pregnancy ? In case of impotency on part of either husband or wife, the husband's sperm is utilised provided both are fertile but since it is adopted in case of only impotency, it is relatively insignificant and has been only moderately successful.³

When the husband is sterile and any third person's sperm is utilised for insemination. There may be unwillingness which may arise due to hereditary disease, when R H factor of the spouses are incompatible or where there is history of insanity in any of the spouses. In all these cases third person's sperms are utilized. Approximately ninety per cent of the inseminations are done due to the husband's sterility.

Religious View-point :

As mentioned above, in India the practice of artificial insemination is scanty and in future also, as compared to the western countries, it will not be readily acceptable. It is due to strong grip of religions.

For a Hindu son is not less important than marriage. Son is, for them means for salvation, he relieves father from hell⁴. Through a son one conquers the world, through a grand-son one obtains the immortality, and through the great-grandson one ascends to the highest heaven⁵. This, alongwith the social reasons, has prompted to have a son, by natural means (own son) or by secondary means. Thus in *Vedic* literature we find references to *Khetraja* (Soil born), *Putrikaputra*, *Kanina* (maiden born) and *Dattaka* (adopted). There are thirteen types of sons. Manu recognises only twelve of them and puts them into two categories⁶.

- I. Category—(1) *Aurasa*, body born; (2) *Khetraja*, soil born (3) *Dattaka*, adopted (4) *Kritrima*, appointed (5) *Gudhotpanna*, secretly born and (6) *Apavindha*, cast-of.

3. Note, "Social and Legal Aspects of Human Artificial Insemination", 1965 Wis. L. Rev. 859-860.

4. Mann, V, 133

5. Manu, IX, 137-138.

6. Quoted from, Paras Diwan, *Modern Hindu Law* 1988, 208.

II. *Category*—(7) *Kanina*, Maiden born, (8) *Sahodha*, receiving along with the bride, (9) *Krita*, bought, (10) *Paunnarabhava*, self begotten on remarried woman, (11) *Swayamdatta*, self given and (12) *Shaudra*, son of a *Brahman* by a *Sudra* wife.

Manu has not mentioned *Putrikaputra*, but this was also one of the kinds.

Except *Aurasa*, *Putrikaputra* and *Dattaka* rest became obsolete in the post-Smriti period. Even before these were disapproved, in *Rig Veda* it is said, "Agni, no son is he who springs from other." At another place it again says, "A son begotten of other, thought worthy of regard, is not to be contemplated even in mind as fit for acceptance....." Although Manu talk about them but he very categorically disapproved them when he says "These eleven, the soil born and the rest, the wise one calls substitutes of a son taken with a view to the failure of a religious duty". He further comments, "The one who tries to cross the hell with the help of bad sons result similar to those obtained by one who tries to cross the water with the help of a seasieve."⁸ It seems that such sons existed under some customs and probably their existence could not be ignored, and the devotion of sages to systematise them was so great that they placed them in the classification of sons. One thing is clear that all sages have condemned them.⁹ Presently only *Aurasa* and *Dattaka* are in practice and recognised by the law.

Niyoga has also been a process, whereby, the wife was asked to cohabit with another man (fixed for that) till she became pregnant. This practice was not commonly accepted and was resorted to only in case of sterility and impotency on part of the husband. *Niyoga* was also not recognised by the sages.¹⁰ *Niyoga*, may be different in practice but has similarity with the modern technique of artificial insemination donor (hereinafter referred as AID). AID, therefore, is approved neither by the Hindu religion nor by the modern Hindu law. But since the case of artificial insemination husband (hereinafter referred as AIH) is entirely different and no third person is involved, there can not be religious injunction against it.

7. *Manu*, IX, 180.

8. *Manu*, IX, 16.

9. Diwan, *supra*, note 6, at 207.

10. This has been in practice in Punjab even before the Independence of India in a changed form. As a matter of custom the wife of the elder brother was compelled to cohabit with younger brothers but now it is an obsolete phenomena.

Before the advent of Islam, adoption was in practice in the same manner, as under the Roman law and the Hindu law. It remained in practice for quite some time during the life time of Prophet. He had also adopted one male child named, *Zaid*. This practice of adoption was abandoned when *Quran* prohibited it with retrospective effect.¹¹ Islam approves only natural child. It does not even validates the adoption. In view of this stand AID, therefore, is prohibited in Islam. Since there is no express mention about artificial insemination in the basic Islamic literature, a questionnaire was given to the eminent *Muftis* of the *Sunni* schools to get their point of view. They unanimously say that AIH is permissible, whereas the AID is a *haram* act.

Catholic church is also against the artificial means of reproduction including the artificial insemination. In 1958 Pope Pious XII, in a discourse to those taking part in the second Naples World Congress on Fertility and Human Sterility, stated that :

It is never permitted to separate those different aspects to such a degree that as positively to exclude either the procreative intentions or the conjugal relations.¹²

In the opinion of the Church, therefore, conception can only be brought about as a result of parental love and can not be perceived as product of an intervention of medical and biological techniques which would be equivalent to reducing the embryo to an object of scientific technology.

AID and Adoption

Adoption is a strong variable to the AID having different methodology but the effect is the same. In both the cases there is an interception in the family; in case of adoption, some body else's child is brought within the arena of the family; and in AID a third person's semen is utilized. However, they differ in the sense that AID fulfills the maternal urge of the woman. If in AID confidentiality is maintained the child and the father can be detracted from alien feeling. Also, unless the law is made to legitimize AID child, AID increases illegitimacy and also the fertility rate. In the western countries, people are keen to adopt children, but they are steering off from it because children for adoption are not readily available and they have to pass through a lengthy pro-

11. *Quran*, 33 : 4, 33 : 40.

12. Michael Rapinet, "The Religions and Moral Dilemmas posed by Scientific Developments in the Field of Genetics : A Catholic View", (1988) 28 : 3 *Medicine Science and Law*, 258.

cedural requirement. Moreover, when a child is adopted, in most of the cases, there is a problem of adjustment. Therefore, in case of adoption there is a transit period, in which the parents and the child pass through a changed psychological state, and to cope with this they employ child reformist and psychologist. And this way the process of adoption is time consuming and strainuous.

In India circumstances are differnt. Adoption for a Hindu is a sanctimoneous religious performace, as ancient Hindu law prescribes religions rites to it. Although, the Hindu Adoption and Maintenance Act, 1956 has changed the characteristics of adoption from religious to secular, the rites attached to it are still performed in most cases of adoption. In India due to high fertility rate and increasing trend of poverty, the availability of children are in plenty, there is no rigid state and juridical control over adoption, the procedure to adopt a child is not complicated.

AID and Psychology

Some inherent psychological problems arise in case of AID. The husband who has sterility or impotency, will always be reminded of this deficiency by the child. He will have to develope a sense of ownness for the child from within. If relations of the sposes are strained, there are chances of disclosure of the fact to the child causing ill feeling and sense of insecurity in him. On the other hand AID fulfills the urge of the spouses to have a child, gives them a new status in the society. and saves them from separating for the quest of a child. The demerit requires that some precautionnary measures should be adopted. First, the doctor concerned should wait and watch and should advice for AID to only those couples who are very very keen for it; second, he should maintain anonymity between the couples and the donor so that no one, except the doctor, the couple, and the donor could know about the genetic origin of the child. There is a reason for these persons to know so that the donor does not belong to the prohibited degree and it is further necessary for religious congruity between the donor and the recipient.

Legal Aspects

So far the AIH is concerned, legal problems are not significant. Legal issues are mostly related to AID. In every case of AID five persons are there : wife, husband, doctor, donor and child. It gives rise to the rights and liabilities, of each one of them. If the spouses agree for AI, they can claim it as a matter of right. But as a matter of a principle, when AIH is possible right to AID should not be available.

To ascertain the agreement of both of them, there should be sufficient procedural safeguards, e.g. both the spouses must apply to the doctor of an authorised centre, showing their intention and agreement for AID with sufficient proof, that they are legally wedded couple and the marriage still subsists. The doctor must meet them, so as to ascertain their keenness to AID and he should perform insemination only after three months from the date of the application. In absence of such safeguards there are chances of break-down of the marriage which will be detrimented to the child. If the wife's solitary right to AID is recognised, she can procede without taking consent of the husband, or in some cases even against the wishes of the husband, No husband in such circumstances will like to continue any more with his wife and may go for divorce. In these circumstances it is suggested that AID without the consent of the husband will have to be made as a ground for divorce.

To avoid all such complexities the western countries have provided facility of AID only to married couples with the consent of both the spouses. In the United States nearly 29 States have lilaws which sanction the use of AID by woman. Several of the statutes expressly limit it to the married women. Four of the States provide for situations in which AID is used by unmarried women. The remainder of the Statutes are written in such a way that they can be interpreted as disapproving it for unmarried women or leaving the question open.¹³

In U. K., the Warnock Committee, 1984¹⁴ and the Law Commission¹⁵ recommend for prohibition of divorce AID for unwarried or widow women. The socialist countries have also statutory prohibition for it.¹⁶

The reason which can be appended for restricting the AID only to married women may be : marriage institution, in the present set-up the law and the society anywhere in the world, is more important than right of woman to have a child by any of the means. The child of an unmarried woman in all circumstances will be an illegitimate child. By law a legitimacy can be provided to him, but still the social acceptance will not be so easy and he will have to bear the rigors of the society.

13. Dominich Vetri, "Reproductive Technologies and United States Law". (1988) 37 *International and Comparative Law Quarterly*, 512.

14. J. P. Alec Samuels, "Warnock Committee (Human Fertilization and embryology, (1984) *Medico-Legal Journal* 174.

15. Working Paper 74.

16. J Haderka, "Artificial Reproduction in Czechoslovak Law with Special Reference to other European Socialist countries", (1987) 1 *Int. Journal of Law and the Family*, 74.

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Provision for Licensing

In absence of sufficient governmental control and supervision, there are chances that the individual doctor of the institution may not take enough precautions. If this state of affair prevails, it will be detrimental to the family and the AID child. It is therefore, suggested that the institutions or the doctors must get license for performing insemination from the appropriate governmental body after the recommendation of a body comprising at least of three senior doctors of the area. Such body shall investigate and ascertain the fitness of the proposed centre and then only a certification to that effect be granted. In absence of such mandatory provision for licensing, the act of insemination can be performed by any doctor or any other person. If this is done it will involve complex socio-legal problems. In California in the U. S. A. even a nurse inseminated one donor's sperm into an unmarried woman which resulted in a litigation and the court in *Jhordan v. Mary*,¹⁷ had to come heavily on such AI. In such cases it is suggested that the law should prescribe penalties to all connected with such insemination.

The licensing policy in the western countries are being made stricter. In England, the Warnock Committee recommended for a governmental licensing body in place of the private body. The suggestion has been welcomed by the jurists and the doctors, though with some modifications, e.g., the licensing body should not be dominated by the non-physician members.¹⁸

Doctor's Responsibility/Liability

The doctor concerned must be satisfied before performing insemination about the consent of the husband and further that the person who has given consent is the husband. He must also be satisfied about the suitability (compatibility) of the donor for the recipient. For suitability he must also ascertain about the religion and the blood relationship of the wife, the husband and the donor otherwise it may create complications in future.

There should be responsibility of the doctor to maintain records, so that, if need arises, the genetic origin of the child could be known. At the same time he has to maintain confidentiality and to release the records to only those whom the law permits. If the doctor fails in his duty he should be held liable and penalty should be prescribed for it.

17. 224 Cal. Reporter 530 (1986).

18. Jacqueline A. Priest, "Assisted Reproduction-Developments in England" (1988) 37 I. C. L. Q. 537.

Age of the Donor and Recipient

It will be against the public policy and also against the law to permit the AI to a minor wife.¹⁹ Minor husband also can not give a valid consent. In some cases, the urge to get a child may force a minor donor and the recipient to get insemination done by a non-recognised physician. In view of this possibility and the future complications it is suggested that AID should not be allowed when the wife, the husband or the donor as the case may be are minor under the law to which they are subject.

Legitimacy of the AID child

The AID child is legitimate, because although impotency is ground for nullity but marriage subsists till it is repudiated and further, there is a consent of the husband. Even in the eye of religion the AIH child is a natural child of the spouse.²⁰ Question of legitimacy is important in case of AID. The AID child is procreated with the use of the semen of a third person therefore the donor presumably will be the real father of the child, and the child will thus be deemed a bastard child. The western jurisprudence, by the suitable legislations or by the case law, has accorded the AID child legitimacy. In the United States the legislations and the juristic opinions have provided legitimacy to AID child.²¹ The case law also supports the legitimacy of the child when the husband expressly or impliedly had consented for insemination.²²

Certain evidentiary protections have also been accorded to the child born in a lawful wedlock is presumed legitimate.²³ Thus the Supreme Court of Iowa has stated that, "every reasonable presumption will be admitted in favour of legitimacy and the burden of proof is upon the person alleging the contrary. Every child born in lawful wedlock is presumed to be legitimate—a rule founded upon decency, morality, public policy, sacredness and harmony of the family relationship."²⁴ The reason for this presumption is to protect the child from the stigma of bastardy. But this presumption has been made rebuttable, with sterility, impotency, or non-access. It is for this reason that the U. S. legislatures had to make law.

19. In India marriages of the minors are not valid. But the Courts have granted them validity on the basis of the equitable principle of *Factum Valet*.

20. See *Supra*.

21. Note, "A Legislative Approach to Artificial Insemination", (1968) 53 Cornell L. Rev. 497, 503.

22. 13. Fam Law Reporter 1244 (S. C.), 23 Feb., 1987.

23. J Wigmore, Evidence, 2527 (3rd Ed.) 1940,

24. *Bowers v. Baily*, 237 Iowa, 237,

English law has presumption about the consent and parentage. The Law Commission in its report²⁵ suggested that where there was a consent of the husband for insemination, the child should not be deemed of the donor. The recommendations of the Law Commission was partly adopted in the Family Law Reform Act, 1987.²⁶ Section 27 (1) of the Act brings a deeming provision, whereby it will be deemed that there is consent of the father and the child will be deemed of the spouses. But this presumption is rebuttable through the court of law.

The Commission had recommended for proper recording of the consent of the husband, but this was not translated into law. To avoid any conflict in future between the donor and the spouses or the spouses *inter se*, suggested that the insemination may be permitted only on the written consent of the husband and it must be duly recorded.

In India there is neither any statutory law nor case law to determine the legitimacy and the parentage of the AID children, except the presumption that the children during the subsistence of the marriage will be deemed of the legally wedded spouses. Muslim Hanafi Law thus says that child taking birth not within six month of the solemnization of marriage and after two years of the repudiation of the marriage or death of the husband will not belong to the husband. There is strong presumption about the parentage of the child. There, is also provision for acknowledgment by the father about the legitimacy of the child. But the law does not have provision for legitimation. When the children are proved to be illegitimate, law does not provide legitimacy to them. Therefore, the law provides that the above mentioned presumption is rebuttable. The grounds for rebuttal can be impotency, sterility and non-access.

In case of AID there can not be any presumption, as it would be evident from the facts that the natural father of the child is the donor. Therefore, the AID child will be illegitimate.²⁷

The Indian Evidence Act, 1872 also provides for similar presumption. According to it the child born during the continuance of a valid marriage or within 280 days after the dissolution of the marriage shall be conclusive proof that the child is of the husband. This presumption is also rebuttable on the ground of access.

25. Report No. 157 (1986).

26. The Act came into force on 4th April, 1988.

27. However, about the legitimacy of the AID child (With or without consent of the husband) when marriage subsists, the *fatawas* given by *I marat-e shariy*, Bihar Sharif, *Nadwatul Islamia*, Lucknow, *Aljamiatul Islamia*, husband and *Riazul Vloom*, Jaonpur maintain that the child will be deemed a legitimate child of the spouses and thus would have legal rights to inherit then properties.

In the light of the existing law, however, if the facts of AID is not known due to extreme secrecy, the child would get the protection of the above provisions. But in absense of such secrecy the child will be illegitimate. Therefore, the legitimacy can be granted to such children only by legislation. Legislation can be of any of the two types : first, to make all the children born by way of AID to be the legitimate children of the legally wedded spouses during the subsistence of the marriage; second, to grant letitimacy only when there is consent of the husband for AID. So far the AIH is concerned, there is no doubt for the legitimacy of the AIH children.²⁸

AID and the Donor

As pointed out above, the donor should be major, from beyond the prohibited degree of the spouses and from the same religion to which the spouses belong. Of these the age criteria should be mandatory. The rest two can be left at the option of the spouses. We have also mentioned above that there must be medical compatibility of the donor and the recepiant and the donor must be healthy, without demonstrable genetic defect. In this connection the requirements set out in the Hungarian provision as to donor's health may be mentioned. It requires, for example, favourable outcome of the genetic and psychological examination, the ascertainment of blood groups and the administration of tests for syphilis, gonorrhoea and trichomoniasis and screening of sperm quality. A test for AIDS virus should also be done. It is not only the responsibility of the doctor concerned but also the duty the donor who knows about any such disease, to inform the doctor about it. For ensuring the above mentioned requirement about the knowledge of the disease, a declaration form should be prescribed to be filled and signed by the donor. There should be further provision so that a donor does not become a professional donor.

Right of the AID child to know about his genetic origin

In India the AID child would like to know about his genetic origin for his matrimonial relation. This right has been recommended by the Warnock Committee in England also. But this right of AID child should be available to him only when he becomes 18 years old. For this, provision should be made for making application to the authorised centre confidentially. The authorised centres may be empowered to confidentially release such information.

28. See *supra*.

Sperm Banks

To avoid delay in searching the suitable donor, sperm banks have come up in the western countries. In India also this practice has been adopted. In the western countries, to have a close vigil on such banks, license are granted and they are required to maintain records and to maintain confidentiality. The Warnock Committee thus opined :

“Sperm Banks should be unlawful unless licensed by the Secretary of State. They should be subject to medical supervision, contain no more sperm than is reasonably good reason and their charges should be approved.”

The precautionary measures suggested by the Committee have in principle been adopted by the legislature. The license for the sperm Bank, it is suggested, should be given to only those centres to whom the license for a AI have given.

Conclusion

In the western countries procreation of children by AI is gaining popularity because the adoption, there consumes much of time and creates problem of adjustability. The governments are keen to permit the AI but only under the close control of law. The law thus permits it only in exceptional cases so that its deceptive use may be minimised. Still some legal problems relating to AI are unresolved and exercise is on to make further reforms in this law.

In India the practice of AI has started, but it has yet to gain popularity because of poverty, high fertility rate and the also simple procedure involved therein. One of the other reason and a powerful one is the religious sanctions against it.

However, there is a need to have a comprehensive legislation, with prime objects : firstly, to allow AI only in case of married woman with the written consent of the husband; and secondly, to protect the off spring of such scientific advance. Further, AID shall be allowed when AIH is not possible. The process of AI must be closely regulated by law and processed by a competent doctor. Before we close we, should not forget the population explosion in India where a liberal approach to artificial insemination may create more problems.

HUMAN GENECTICS AND LEGAL ASPECTS : SOME LEGAL PROBLEMS IN QUEST OF SOCIAL JUSTICE

PROFESSOR K. L. BHATIA*

Introduction

Both medical science and legal science concern with the human beings. The former concerns with the human beings medically; viz. curing, preventing, saving and protecting human life against all hazards of ailments; and the latter concerns human beings through legal process; viz. protecting life, liberty, entitlements, claims, rights, duties of human beings. Both the sciences manifestly take developmental approach through their cumulative endeavours. To both, the pride of the profession is that “nothing human is alien to me”¹—that their concern is with the human and humane. Whatever may be the merit of this argument, it is a fact that with the coming of the Renaissance, however, science and technology have begun to turn their attention to the events of earthly history and to find in them the evidence of progress.^{1a} Scientific and progressive developments are nonetheless directed towards the progress of man and society, and this change is striving to explain the method, the phenomenon through the realm of their reliable knowledge, whereas legal science and the change in its developmental process is striving to understand the method, the phenomenon. The new scientific and technological progressive movements have carried much impact on the human society and human behaviour, and as such the legal science, being the science of human regulation, has developed an interaction with science, medicine, technology, etc. Obviously, both the sciences—medical and legal—mean change, change in the social order and change in the governmental and

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1. Sess a line from Terence]: *Homo sum : humani nil a me alienum puto* : I am a man, nothing human is alien to me”, as quoted by Sol M. Linowitz, “Keynote Address”, (1988) 173 *Cornell Law Rev.* 1268.
1a. See, Robert Bierstedt, *THE SOCIAL ORDER*, 1970.

legal order.² This suggests, *inter alia*, that the problems presented by medical science to law must be perceived not only as those present, but also those emergent, i.e., resolution of known problems and the ability to anticipate future problems, plus the ability to take adequate action in advance.³ Any change pregnant with difficulty must be managed. And, it is here that law comes into play. In this quicksand, lawmen can't be more susceptible or neutral technicians, for then they will have nothing to offer; they, in turn, require a new type of thinking process and perception. Because, law is the articulation of the answers posed by medicine.

Genetics, Human Genetics and Society

Genetics and Genetic Engineering is one such area of medical science which unfolds the new challenges to lawman and, is a knotty problem, and, perhaps, that is why Charles Kingsley said :

Tom...is now a great man of science...and knows everything, except why a hen's egg don't turn into a crocodile, and two or three other little things...⁴

One may, in the same vein, recall Shakespear's Caesar attaching suspecion to those who are lean :

Let me have men about me that are flat, Sleek-headed men and such as sleep o' nights. Yond Cassius has a lean and hungry look, He thinks too much; such men are dangerous.⁵

There have been endeavours, in recent times, to find linkages between physical characteristics and personality. A reputed socio-anthropologist has remarked that "your carcass is the clue to your character."⁶ The perception is that this is a role to be assigned to biological factors in the development of men and women.⁷ It is a belief that biological factors mean those having to do in general with the genetic constitution of the human organism; they concern things we have to do because we are members of a particular species, because we share the planet with other species, and because we live in a somewhat delicate ecological balance with the others.⁸

2. See, Arthur Selwyn Miller, "Science vs. Law : Some Legal Problems Raised By Big Science", in : *READING MATERIALS, Vol II INTERNATIONAL CONFERENCE OF APPELLATE MAGISTRATES*, 1977, p. 536.

3. *Ibid.*

4. As quoted by Arthus P. Mange and Elaine Johansen Mange, *GENETICS. HUMAN ASPECTS*, 1980, p. 3.

5. Shakespear, *JULIUS CAESAR*.

6. Vide Robert Bierstedt, *op. cit.*, p. 64.

7. *Ibid.*

8. *Id.* at 65.

In fact, the expression "genetics" has been derived from Greek word "gen" meaning "to grow into, or, the science of coming into being or existence."⁹ Gregor Johann Mendal, (the father of Genetics) in 1885 demonstrated that certain hereditary factors operate in all biological species.¹⁰ However, it was the Danish biologist Wilhelm Johannsen who in 1909 called such factors as Genes.¹¹ Thus the name stuck. It is now known that the genes not only transmit but also mastermind the entire process of life.¹² The genes are located in the chromosomes which are themselves situated in the nucleus of the cell known as DNA (Deoxyribonucleic Acid) and RNA (Ribonucleic Acid).¹³ The genes, the chromosomes, and the nucleus together constitute "a riddle wrapped in a mystery inside an enigma."¹⁴ It has been illustrated that the genes form the riddle, the chromosomes represent the mystery, and the nucleus the enigma. Be that as it may, the stepwise progressive approach to the knowledge of genetics may be as follows :

9. See, in particular, Jack B. Bresler (Ed.), *GENETICS AND SOCIETY*, 1973; Christina Algiere Kasprisin and Duke O. Kasprisin, *CLINICAL HUMAN GENETICS*, 1982; Mohan P. Arora and Gurdarshan S. Sandhu, *GENETICS* 1987.

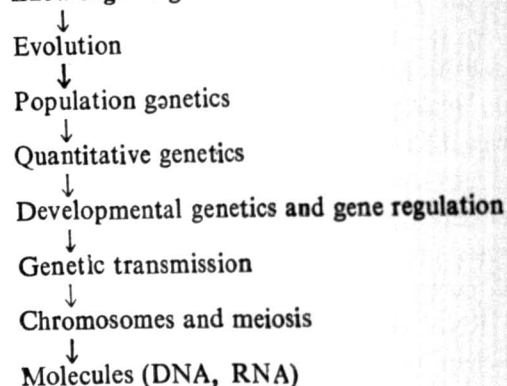
10. See, Mange and Mange, *op. cit.*

11. *Ibid.*; Besides W. Johannsen, the other renowned scientists Bateson, Punnett, Funneth, Suthon, Bridges, Morgan, H. G. Khenana, Watson, Crick, McClintock, etc. have done tremendous investigations to the knowledge of genetics.

12. *Supra* note 10.

13. *Ibid.* The normal human nucleus, which defines the personality of the cell, contains 46 chromosomes arranged in two sets of 23 pairs, one set being derived from each parent. The sex cells, ova or spermatozoa, are therefore unique in containing only a single series of 23 chromosomes, but this series is formed from a random choice between one of two paired chromosomes present in each parent. Certain severe abnormalities are the direct result of an abnormal chromosome being present—mongolism is, perhaps, the classic example. Chromosomes consist of large number of genes. These are formed from deoxyribonucleic acid (DNA) and function as templates from which further identical genes can be formed at will through the medium of ribonucleic acid (RNA) which acts as a messenger or carrier of a carbon copy. The original genetic pattern of the fertilized ovum is there by maintained as fetus and free-living body are developed. Save in abnormal circumstances, each paired chromosome will contain one of a pair of genes that refer to the same genetic characteristic; each gene is derived from either the father or the mother but both cannot come from a single parent. These paired genes are known as *alleles*. The allelic genes may be the same, in which case the individual is said to be *homozygous* for that particular factor, or they may be different, resulting in the *heterozygous* state.

14. *Supra* note 9.

Knowledge of genetics

As the scientists researched more and more on genetics¹⁵, and obviously, opened up the new vistas concerning the possibility of cloning human beings themselves. Cloning is asexual reproduction. A male and a female need not unite to produce an offspring. But, in cloning, cell from a male will produce a male and vice versa.¹⁶ This handicap is compensated by the fact that the offspring will be an exact replica of the donor.¹⁷

New investigations of the the genetics have given birth to a novel thing categorised as Genetic Engineering. This is, perhaps, an excellent example of modern man's attempt at genetics. The two words Genetic Engineering, one from biology and the other from applied physics, make a catchy phrase.^{17a} This is a process to see if the genetic code can be permanently changed by manipulating the genes.¹⁸ The most modern accepted concept of genetic engineering is the change of undesirable genes to more desirable forms by a process of directed mutation.¹⁹ The process to alter customary patterns of procreation the modern medical technology refers to the genetic improvement²⁰ of the human species (Eugenics, i.e.

15. The branches of genetics are : Plant genetics, animal genetics, human genetics, microbial genetics, myoogenetics, cytogenetics, population genetics, biochemical genetics, physiological genetics developmental genetics, clinical genetics, radiation genetics, behavioural genetics, quantitative or biometric genetics, ecological genetics, taxonomical genetics, genetic epidemiology, evolutionary genetic,

16. *Supra* note 10.

17. *Ibid.*

17a. *Vide* Mange and Mange, *op. cit.*, p. 554.

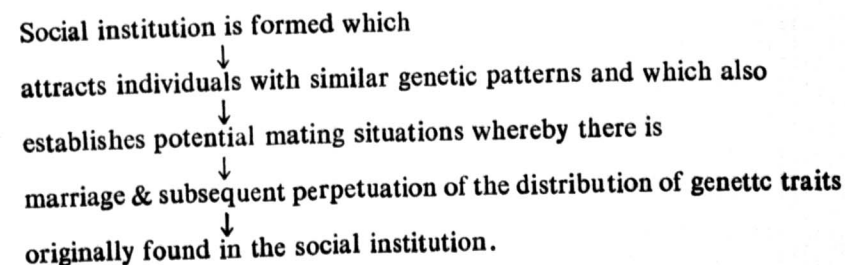
18. Jack B. Bresler, *op. cit.*, p. 24.

19. *Vide* Donald Huisingh, "Should Man Control His Genetic Future", as quoted in Jack B. Bresler, *op. cit.*, p. 269.

20. *Supra* note 17a.

will born), which involves the manipulation of genes or gametes, is called genetic engineering.²¹ It has been argued that though its connotation of remodelling or fabricating is accurate, but it carries an additional aura of something unsavory, insensitive, even inhumane, and, naturally, there ought to be some moral, or, ethical, and legal objections to such genetic technologies.²²

The above mentioned introductory cue unfolds that the field of human genetics has grown rapidly in the past and continues to grow in the present, and more developments may continue to grow in the future as well. All people are separately recognisable, but no human being is exactly alike, not even and identical twin.²³ The similarities and dissimilarities (physical appearance and ability, mental ability, emotional, and functional capabilities) vary from individual to individual, because they are a mixture of basic inherited qualities with multiple environmental influences which form the human personality.²⁴ This intriguing process has puzzled the people, and the scientists through their scientific pursuits could unfold the mystics of the puzzle by advancing the scientific mechanism of genetics. Genetics is the science of inheritance. It strives to elucidate the rules that characterize the transmission of human characteristics and it explains the passing on of traits from one generation to another.²⁵ Human genetics firmly rooted in the fields of general genetics and combined with the medical sciences and their increasingly sophisticated techniques for diagnosis, prognosis, and treatment, there seems interface between human gene pool and human soccety, and human society and the gene pool,²⁶ which may be phrased as socio-genetic interface. Turner²⁷ gives a remarkable amount of socio-genetic interface :



21. *Ibid.*

22. *Id.*

23. See, Mange and Mange, *op. cit.*, p. 3; Kasprisin and Kasprisin, *op. cit.*, p. 1.

24. *Ibid.*

25. *Supra* note 9.

26. See, Jack B. Bresler, *op. cit.*, pp. 1, 2, 3, 25, 26.

27. Christy G. Turner II, in : Jack B. Bresler, *op. cit.*, pp. 26, 49.

Human Genetics and Challenge to Law

No doubt that human genetics provides tremendous opportunities to alleviate human sufferings, but, it is a belief that its growth has also spawned social, political, and legal problems.²⁸ And, that is why the human genetics information and methodologies are making considerable impact upon medicine and law.²⁹ What are such legal problems posed by human genetics which need resolve? Legal problems are not easily identifiable in the context of law-human genetics interface. And, a variant of this is: One can never get correct answers without first posing the correct questions.³⁰ Obviously, innovative perception is imperative in this integrative sphere (Human genetics) and Law). Lawmen have to be creative. However, it is not certain that a lawyer is in a position to identify the legal problems raised by human genetics. The point to be seen is that the lawyer, as pointed out by Arthur Miller, is a technician, a legal mechanics, a plumber, a person who has problems thrust on him; he is not an engineer, a philosopher, or a seer, even though that type of mind is necessary to perceive the true nature of problems.³¹ It has been opined that law might have something to offer to human genetics and that a profitable interchange could and should take place.³² The problems posed to law by human genetics become relevant to lawmen who must have insights to the concepts developed in other disciplines.³³ What Holmes said decades ago is true in the present context, too, that the autonomy of law is surely one of the greatest delusions of the profession.³⁴

Legal Propositions

Let us begin with an applique that "change is the law of life"—and so it is unequivocally with law. Law is never static. It is dynamic. Even the concepts of due process and personal liberty have changed and are

23. See, Mange and Mange, *op cit.*, pp 3-4, and 553-573; Jack B. Bresler, *op cit.*, pp. 215-279; Robert Bierstedt, *op cit.*, pp. 83-84; Arora and Sandhu, *op cit.*, p. 5.

29. See, Jack B. Bresler, *op cit.*

30. Justice Felix Frankfurter in *Estate of Rogers v. Commissioner*, 320 U. S. 410, 416 (1946); *Priebe and Sons v. U. S.*, 332 U. S. 407, 420 (1947).

31. See, Arthur Selwyn Miller, *op cit.*, pp. 539-540.

32. *Ibid*

33. See, Holmes's assertion that the man of the future was not the black-letter man but the master of economics and statistics: "Scientific Eclat and Technological Change: Some Implications For Legal Education", (1965) 63 *Mich. L. Rev.* 1423.

34. *Vide* Arthur Selwyn Miller, *op cit.*, p. 540; Miller, "Science and Legal Education", (1967) 19 *Case West Res. L. Rev.* 29; Jenkins, "Theory and Practice In Law", (1967) 19 *U. Fla. L. Rev.* 404.

changing. Both are "living principles."³⁵ Judicial process is not so stable when it relates to the rights add duties bound up in the distribution of government largesse—what has been called "the new property"³⁶, much of which has intimate correlation with law and human genetics. Lawmen, therefore, must not only respond or react to scientific change i.e. genetics rather, they must affirmatively seek to guide that change into avenues that will maximize humanistic values.³⁷ It is submitted that the human genetics technology is a runaway technology, and such technology exists to serve man; it may have immense potentialities for injury to human beings and society, and as such the lawmen must undertake "the civic responsibility of protecting mankind against a runaway technology."³⁸

What legal problems this runaway technology has posed baffling the lawmen? Is this technology legally good or bad? Does it increase or diminish human freedom and liberty? Does it enhance our sense of human dignity or does it dehumanize us, i.e., law and morality in this arena of the experimentation in humans? How informed consent is obtained to allow human experimentations? What is the legal utility of informed consent in case of fetuses, mentally retarded persons or prison inmates? Who will be responsible for a defective baby as a result of genetic engineering or cloning, and who should care for such mistakes? What is the legal status of a hired womb? Does the hired womb not affect the right to privacy when zygote (embryo) of some one is put in some one else? Is lessening the incidence of hereditary through prevention of child bearing, i.e. negative eugenics. (i.e. so called eugenic sterilization), legally viable? Legal questions relating to disputes among parents, disputed parentage, baby suffering in hospitals, illegitimate children, procreation of a child and thrusting it on the husband as procreated through wedlock and consequences of divorce and claims of maintenance, surrogate motherhood, etc. invite lawmen's attention. Is law in India ready to provide explanations to these chilling questions? However, answers to all such "legal issues of genetic manipulation" may not be ready-made, but an endeavour, in some of the propositions, is made. Let it be made clear that the issues in this direction are not pure legal one, but, rather, they are the combined problems or issues of Law and Morality conviviality. And, perhaps, that is the precise reason of

35. See, Arthur Selwyn Miller, *op cit.*, p. 543.

36. "Reich, "The New Property" (1974) 74 *Yale L. J.*, 733.

37. See, Reich, "Towards The Humanistic Study Of Law", (1965) 74 *Yale L. J.*, 1402.

38. *Supra* note 35 p. 546.

putting forth the argument that in no other area of genetic engineering have the moral and legal issues been so forcefully argued.³⁹ Though the primary intent of many current and contemplated genetic skills is to help people and their families, to heal and to cure,⁴⁰ yet the major issues are the morality and legality of experimentation upon fetuses who cannot give consent to the technological manipulations, and the determination of the fate of those who may turn out to be abnormal.⁴¹ What tripartite conflict, i.e. Hart-Fuller-Devlin—on law and morality in this perspective may have to say is a compound tangle.

There is another issue or problem of genetic intervention which is often unusual and deserves full public airing. The issue centres round the extension of the genetic technique: If it is acceptable to help infertile couples achieve happiness by passing blocked oviducts, what about the morality and legality of transferring the blastocyst, not back to the egg donor, but to the uterus of another woman? Elaborating the point further, if this "rent-a-womb" proposal can be justified, would it be legal as well as moral to grow the blastocyst, not in the real uterus, but in an engineered womb with an artificial placenta.⁴² Does this manipulation stand the test of the process of law? Does it not affect the right to life and personal liberty and the right to privacy? Let us look at the above mentioned proposition from another angle: If husband pregnates B wife; B wife does not want to undergo the entire process of gestation, and as such "hires a womb" with a contract (of course with the consent of A husband) to return the child after its birth by the hired womb to the original mother. The hired-womb conceives the rented egg (embryo) undergoes the process of labour pains and gives birth to a child. A medico-moral-legal tangle calls for a serious resolve. Suppose the hired-womb woman (or surrogate mother) refuses to deliver the child to the real mother then again a medico-moral-legal tangle is involved concerning the position of this type of transaction under the contract legislation. Recently, a court in the U. S. A. rejected surrogate mother's plea that she and the baby had developed an unexpected but deep emotional attachment during the pregnancy. The court resolved that the genetic parents who paid a surrogate mother an amount of US 10,000 to bear their child should raise the baby despite the surrogate mother's claim that she wants

39. See, Mange and Mange, *op. cit.*, p. 555 *et. al.*; Jack B. Bresler, *op. cit.*, p. 215, *et. al.*

40. See Mange and Mange, *op. cit.*, p. 554.

41. *Ibid*, p. 565.

42. *Id.*

the child.^{42a} The problems of such genetic intervention must be an eye opener for the lawmen in India to prepare themselves to resolve such tangles. This can't be, it is submitted, purely a commercial transaction tangle under the contract legislation.

Let us look at modern medical schemes either for preventing the spread of "bad" alleles, negative eugenics, or for encouraging the transmission of "good" ones, positive eugenics, by manipulating gametes in one way or another.⁴³ The newer scheme or interventions (with or without eugenics aims) include artificial insemination of a female, fertilization of an egg outside the body with subsequent transfer of the very early embryo back into a female's uterus, and clonal reproduction that obviates any need for a sperm cell.⁴⁴ The application of medical and genetic skills to such procedures include attempts to detect genetic disorders before birth or before the appearance of overt symptoms and screening for heterozygous carriers with a view towards counselling prospective parents about the possible phenotypes of their future offspring.⁴⁵ The problems inherent in these technologies are out of reach of the non-medical, non-sciences, and non-technical, but the moral-legal issues in this technical tangle are inherent. This technical imbroglio, therefore, invites as to who shall resolve this medico-legal dilemma—the doctor, the religious institutions, the judges or the legislatures? The patriotic rhetoric of Holmes of U. S. Supreme Court in *Buck v. Bell*⁴⁶ is an indicator:

We have seen more than once that the public welfare may call upon the best citizens for their lives. It would be strange if it could not call upon those who already sap the strength of the State for these lesser sacrifices. Often not felt to be such by those concerned, in order to prevent our being swamped with incompetence. It is better for all the world, if instead of waiting to execute degenerate offspring for crime, or to let them starve for their imbecility, society can prevent those who are manifestly unfit from continuing their kind.

42a. See, *The Daily Excelsior*, Jammu, 24 October, 1990, p. 2; see *infra* notes 61, 62, 63, 64 for detailed discussion on surrogate motherhood and surrogate services.

43. *Ibid* p. 554

44. *Id.*

45. *Id.*; for genetic counselling see, in particular, Henry T. Lynch, *et. al.* in Jack B. Bresler, *op. cit.*, pp. 217-227.

46. U. S. Supreme Court decision of 1927 reprinted in Mange and Mange, *op. cit.*, p. 555.

Though the U. S. Supreme Court decision is not directly and intimately related to the dilemma posed, and as such quoting Holmes may be unthinkable, but words of Holmes undoubtedly reflect the opinion formed by the eugenic literature that supported the fallacy that all sorts of social and moral ills resulted from a single gene inheritance.⁴⁷ Naturally, one model for eugenic legislature in the U. S. proposed the following socially inadequate classes: the feeble minded, insane, criminalistic, epileptic, inabrate, and the syphilitic, as well as orphans, never-do-wells, and paupers.⁴⁸ Have the lawmen in India started wrestling over such medico-moral legal tangles?

It has been advocated that there is a "need for increased propagation of men of talent and genius, those superior health, moral strength, and high civic worth"⁴⁹ and this could be accomplished through the process of "positive eugenics" and "artificial insemination."⁵⁰ Through these processes, it is sought to separate sexual enjoyment from reproduction, hoping that with new values women accept the eugenic inseminations donated by the greatest living men of mind, body, or spirit while maintaining their love for their husband.⁵¹ Does this social reform introduced or stimulated by positive eugenics stand the test of morality as well as legality in marriage relationship?

Artificial Insemination Donor (AID) or Assisted Reproduction, though is a highly specialized medical practice, but not universally accepted on ethical, religious, moral or legal grounds.⁵² In the United States of America, perhaps 8,000 children per year are conceived through AID, using fresh or frozen donor semen.⁵³ It is employed primarily when a husband is sterile because of a low sperm count or poor sperm mortality. It has also been adopted by couples when a fertile husband could transmit a deleterious disease to the child.⁵⁴ It has been argued that there has been a drastic disease in adoption by childless couples because of the changing social mores and legalization of abortion, and, probably, this seems to be the reason for an impetus to AID in those cases where the male is the responsible for the childlessness.⁵⁵ The choice of the donor

47. *Ibid.*, p. 556.

48. *Id.*; see also J. K. Mason, *FORENSIC MEDICINE FOR LAWYERS*, 1983 pp. 180 *et. al.*

49. Galton and Hermann J. Milier, as quoted in Mange, *op. cit.*, at pp. 557 *et. al.*

50. *Ibid.*

51. See Carlson indicated in Mange and Mange, *op. cit.*, at p. 558.

52. Mange and Mange, *op. cit.* at p. 558.

53. *Ibid.*

54. *Id.*

55. *Id.*

resides with the doctor. The donor and the preadopting couple remain unknown to each, and a few doctors deliberately muddle the matter further by using semen from several donors.⁵⁶ The signed forms absolve the donor of responsibility for birth defects.⁵⁷ Does this phenomenon not create a legal dilemma? It is felt that AID process does not only develop the emotional and psychological pressures but also develop the legal problems. In this process the five persons closely involved—the couple and their child, the doctor, and the donor—bear legal relationships. The area of AID or Assisted Reproduction has seen the greatest increase in legal activities in both courts and legislatures in Europe and the U.S.A.^{57a} Questions about the status of children conceived through such means, status of couples using such technique, and the status of surrogate motherhood and surrogate services have become numerous. The legal relationships are largely unresolved. There are conflicting opinions in this arena. Some, however, feel "the procedure is repugnant in its methodology and morally equivalent to adultery."⁵⁸ Few American States, for example, Georgia, Oklahoma, Kansas, California, Arkansas, North Carolina, have passed AID legislation stating that AID child is legitimate and is entitled to the same rights as a natural child.⁵⁹ Two State Courts in the U.S.A. ruled that the contracts by the surrogate mother were enforceable⁶⁰; two other States approved comprehensive legislation on the use of human embryos and artificial insemination, respectively⁶¹, the first of these prohibited the use of embryos for purposes other than in vitro implantation and the second defined the legal consequences of non-spousal artificial insemination.⁶² However, a more systematic and non-conflicting judicial approach is must in cases of divorce or inheritance. The United Kingdom adopted a legislation regulating surrogate motherhood and surrogate services, the first of its kind in the world.⁶³ The U. K. legislation prohibits commercial activities other than those undertaken by the mother or prospective father.⁶⁴ In 1985 four Australian jurisdictions enacted status governing the status of such children.⁶⁵ Bulgaria included provisions on

56. *Id.*, at p. 559.

57. *Id.*

57a. See, in particular, United Nations Population Fund and Harvard Law School, (1985) 12 and (1986) 13 *ANNUAL SURVEY OF POPULATION LAW*, published in 1988 and 1989 respectively.

58. *Supra* 57.

59. *Ibid.*

60. *Supra* 57a.

61. *Ibid.*

62. *Id.*

63. *Id.*

64. *Id.*

65. *Id.*

such children in its new Family Code, among them the rule that a man giving written consent for his wife to be artificially inseminated will legally be the father of any resulting child.⁶⁶ Yukon, a Canadian territory, in its Children's Act reproduced almost verbatim a part of the Canadian Uniform Child Status Act dealing with the same issue.⁶⁷ The Parliamentary Assembly of the Council of Europe approved a recommendation calling for strict limitations on the use of human embryos and fetuses for diagnostic, therapeutic, scientific, industrial or commercial purposes.⁶⁸ Portugal enacted legislation setting up a statutory framework for the regulation of sperm banks.⁶⁹ Denmark amended its Adoption Act to prohibit commercial surrogate-mother services.⁷⁰ Norway and the Swiss Cantons of Geneva and Vaud adopted statutes regulating various forms of artificial reproduction.⁷¹

Judicial attitude in this perspective is worth noting. In the Federal Republic of Germany (as it was known) the Federal Court ruled that an insurance company was required to reimburse the cost of in-vitro fertilization if that was the only method of overcoming sterility.⁷² Other courts in Germany held that a worker had to be reimbursed for time not worked while undergoing an artificial insemination procedure and that a man who had agreed that his wife be artificially inseminated with the sperm of another man could not deny paternity if the couple had undertaken thorough and well-informed joint decision making and had consulted carefully with a physician.⁷³ In France the Administrative Tribunal of Strasbourg concluded that an association established to act as an unpaid surrogate mother could not be registered immediately because that would violate laws forbidding the inducement of parents to abandon their children.⁷⁴ This decision received support from the Minister of Social Affairs: "A contract between a requesting couple and a surrogate mother has no legal validity."⁷⁵ It is a matter of rejuvenating *de novo* approach to the endorsement of the recommendation of the National Ethics Consultative Committee by the French Minister of Health calling for a three year moratorium on research into genetic manipulation of human embryos.⁷⁶

66. *Id.*

67. *Id.*

68. *Id.*

69. *Id.*

70. *Id.*

71. *Id.*

72. *Id.*

73. *Id.*

74. *Id.*

75. *Id.*

76. *Id.*

One thing is still unclear : Suppose a surrogate mother dies during the gestation period then what is the legal responsibility of the requesting couple ? The law in India on these issues is unclear. *De novo* steps by lawmen in this perspective are imperative. Some kind of socio-legal research in this area in India may indeed be conducive not only to avoid attacks by those who consider it immoral to tamper with human reproduction, but also as an assistant to lawmen.

Predetermination of the sex of a child in the womb of the mother has become a fashion of the day. What would be the legal consequences in this anew imbroglio ? Some socio-legal questions do arise in this area. If the medical practitioner observes some abnormality in child while making sex predetermination, and does not give counselling to the couple concerning the abnormality; thereafter the abnormal child is born. Can it become a case of torts ? Is it not a case of legal dilemma ? Or, let us look at the problem from another side : Suppose there is a predetermination of the sex of a child as a son, but a female is born. Is it not fit case for claiming damages ?

There is one interesting case of annulment of marriage reported from a district court in Punjab where the parentage was disputed. The genetic experimentation could resolve the issue. A, a husband, and B, a wife, had cohabitation of the wedlock. It was the twenty third day of the menstruation of B. Thereafter, the wife B reported to her husband A that she had no menstruation since she had conceived a child. Husband A, happened to be a medical practitioner, filed a suit for the annulment of the marriage on the ground of disputed paternity.^{76a} Through genetic experimentation it was proved that wife B had conceived before the wedlock, and husband A was not the putative or sociological father of the child conceived by A. A decree was passed by the court annulling the marriage without any maintenance allowance to wife B.^{76a}

There is another interesting and fascinating case reported from Garo and Khasi Hills. Inhabitants of that area are short statured. Primarily genes are responsible for height. Some male person's selection to police force was refused on the ground that such male were 5'-2" or less than that, i.e. short statured males did not qualify medically fit to

76a. Under S. 12. of the Hindu Marriage Act, 1955 the basis of the rule is *suppressio veri* by a woman who was pregnant at the time of marriage. The rule applies only in case of pregnancy *per alium*. However, under S. 16 (2) of the said Act the status of such child shall be deemed to be their legitimate child notwithstanding the decree of nullity. See, D. F. Mulla, *THE PRINCIPLES OF HINDU LAW* 1982 pp. 769, 827.

be recruited in the police force. A writ petition was filed in the Gauhati High Court challenging the impugned action affecting their fundamental rights on the plea that genes were responsible for their being short statured. Genetic experimentations came to the rescue of the petitioners and writ was admitted.

There has been, some relationship between genetics and laws prohibiting marriage.⁷⁷ In every legal system some prohibited degrees or categories of marriage are prescribed. There seems some legal, moral, or, social, or, spiritual reasons for such prohibitions. Are there genetic reasons/arguments? For illustration, the confusion which could result regarding the inheritance of property is certainly a legal reason and not a genetic reason.⁷⁸ "The genetic reason", argue Michael G. Farrow and Richard C. Juberg,

for advising against the marriage of related persons is, of course, to prevent the coming together in their offspring of any deleterious receive genes. The probability of this event is determined by the coefficient of inbreeding.... Presumably, the role of the legislatures has been to decide what risk is too much to allow the citizens and they to enact a law accordingly.⁷⁹

The rules laid down in the Hindu Marriage Act, 1955 concerning prohibited degrees for marriage, i. e. sapinda relationship, are "based on the principles of exogamy... Some limit had to be prescribed to prevent incestuous marriages and it was necessary that the rules should if possible be in conformity with the principles of exogamy and eugenics which were at the basis of the ancient rule which prohibited marriages between persons belonging to the same *gotra* or the same *pravara*."⁸⁰

76b. See, in particular, J K Mason, *op. cit.*, pp. 180 *et. al.*; Testing for parentage is a matter of paternity testing. The principal circumstances in which paternity tests are called for are in divorce proceedings and in the adjudication of affiliation orders. A very strong probability may be established through genetic studies; the main function of the blood testing laboratory is to exclude paternity in a man unjustly accused; this it can do with ever-increasing efficiency. Inclusion of HLA (Human Lencocyte Antigens) system will, of itself, exclude 98 per cent of all wrongly accused men. The red cells meet almost all these requirements and as a result testing for parentage, which forms the major part of medico-legal genetics, is virtually a matter of blood testing.

78. *Ibid.*, p. 238.

79. *Id.*, p. 234.

80. *Vide*, D. F. Mulla, *op. cit.*, pp. 727 *et. al.* at 736; S. 3 (g) of THE HINDU MARRIAGE ACT,

The last proximity may have to be discussed from the criminality perspective. Does genetic represents a statement of crime? That is to say, does it help to explain the delinquent and criminal behaviour and causes of social disorganisation? Agreed that crime is, of course, largely a legal problem. However, should it be safe to say that genetics may also have contributed to our understanding of criminal behaviour. Sutherland thought of his theory as a genetic rather than as a mechanistic explanation.⁸¹ According to Sutherland a genetic explanation which seeks to find the cause in the life history of individuals.⁸² According to him, genetic explanation is distinguished from the mechanistic explanation used principally by physical and biological scientists and which seeks to find the cause of delinquency in separate and distinct factors operating at the time that a crime occurs.⁸³ He contends that mechanistic explanations have been notably unsuccessful in the behavioural field because of the inability of behavioural scientists to isolate and weigh factors.⁸⁴ Sutherland's genetic explanation is a behavioural explanation. However, Reckless opines that Sutherland's genetic explanation is based on learning theory⁸⁵ viz. of the way behaviour is imitated and made a part of one's own actions. But this criticism against Sutherland does not speak about the true import of Sutherland's theory of genetic explanation of criminal behaviour which may be a personality trait gained through varied influences and imitation may be one such influence alone.

CONCLUSION :

What could be the successful conclusions in this medicolegal genetic tangle and imbroglio? The proximities of this tangle are a challenge to lawmen to have a de novo perception. This is a most complex issue having new challenges ahead. If the procedures of gene manipulation are allowed to become a regular feature, would there not be a risk of misusing the genetic engineering in a particular religion, or, race, or, community, etc. Can laws themselves alone solve the socio-moral-legal problems posed by the genetics? Would laws be enough to improve the challenges posed by genetics? It is the belief that a law can be both useful and influential, because law can introduce a concrete clarity and indicate what will be henceforth a proper conduct; the law can operate as an instrument of education, lending dignity and rectitude to a course of conduct that

81. Edwin H. Sutherland, *PRINCIPLES OF CRIMINOLOGY*, 4th Ed, pp. 6-7.

82. *Ibid.*

83. *Id.*

84. *Id.*

85. Walter C. Reckless, *THE CRIME PROBLEM 1971* (Indian Reprint) p. 398.

might not otherwise be openly approved or candidly pursued.⁸⁶ The lawmen may take serious the remark of the Roman poet Lucretius in order to clear the imbroglio: "*Felix qui potuit causas rerum cognoscere*", i.e. happy is he who can know the causes of things.⁸⁷ Be that as it may, one is prompted to share the feelings expressed by John Baillie and T. S. Eliot respectively. The former expresses: "The future of man is secure only as long as the virtues of humility, tolerance, and impartiality are retained as absolute standards. Within this framework we should use scientific advances as tools to serve society."⁸⁸ T. S. Eliot expresses the feelings which may be taken as a befitting tribute to Human Genetics and Legal Aspects interlock:

Nobody likes to be left with a mystery. But there's more to it than that. There's a loss of personality; Or rather you've lost touch with the person. You thought you were. You no longer feel quite human. You're suddenly reduced to the status of an object—A living object, but no longer a person. It's always happening, because one is an object. As well as a person. But we forget about it. As quickly as we can. When you've dressed for a party. And are going downstairs. with everything about you. Arranged to support you in the role you have chosen. Then sometimes, when you come to the bottom step. There is one step more than your feet expected. And you come down with a jolt. Just for a moment. You have the experience of being an object At the mercy of a malevolent staircase. Or, take a surgical operation. In consultation with the doctor and the surgeon. In going to bed in the nursing home. In talking to the matron, you are still the subject. The centre of reality. But, stretched on the table. You are a piece of furniture in a repair shop. For those who surround you, the masked actors, All there is of you is your body. And the 'You' is withdrawn.⁸⁹

86. See, Robert Bierstedt, *op. cit.* p. 477.

87. As quoted in Robert Bierstedt, *op. cit.*, p. 510.

88. John Baillie, *NATURAL SCIENCE AND THE SPIRITUAL LIFE* 1952 pp. 34-43.

89. T.S. Eliot, *THE COCKTAIL PARTY*, 1950 pp. 29-30.

THE PHENOMENON OF INTERFERENCE WITH HUMAN LIFE : SOCIO-LEGAL ISSUES INVOLVED IN THE RIGHT TO DIE IN PEACE

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I. Introduction

The right to live and let live is the very foundation of the human society itself. For this reason, human right to life is recognized as an inalienable right entailing due protection by law against any arbitrary deprivation by national legal systems as well as by international covenants on human rights.¹ However, in relation to the right to life questions have been arising from time to time as the preservation of life itself has become too complex with the advancement of human civilization, particularly owing to the scientific and technological revolution. Besides, the right to life is inextricably interlinked with a cluster of other human rights because it has a wide ambit to raise a variety of issues such as adequate standard of living, freedom from hunger and unemployment, freedom from pollution and abolition of death penalty. More recently, the right to human life has been affected due to accelerated interference with human life by medical science and technology. This interference, requiring socio-legal and moral evaluation, can be classified in three major categories :—

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1 Article 3 of the Universal Declaration of Human Rights Article 6 of the International Covenant of Civil and Political Rights.

Art. 2 of the European Convention on Human Rights and Article 4 of the American Convention on Human Rights, and Art. 21 of the Indian Constitution guarantee the right to life. The right to life enshrined in Art. 21 of the Constitution means something more than survival or mere animal existence as it includes the right to live with human dignity as well as all those aspects of life which go to make a man's life meaningful, complete and worthwhile. See in *re Saut Ram*, AIR 1960 SC. 932; *State of Maharashtra v. Chandrabhan*, AIR 1983 SC. 803 (paras 1, 20); *Francis v. Union Territory*, AIR 1981 S. C. 746 (para 3) *Maneka v. Union of India*, AIR 1978 S. C. 597.

- (i) regulation or reproduction through deliberate interference by way of limitation of births by contraception, abortion and sterilization, and by induction of life through artificial insemination.²
- (ii) Interference with the duration of life in the form of euthanasia as a method of deliberately shortening the human life and transplantation of human organs as a means of prolonging a human life through the use of organs from a doomed or extinct life.³
- (iii) The qualitative manipulation of life through the use of genes for the fertilization of ore or the genetic engineering.⁴

The major reasons which lie behind the variety of interferences with the human life are : (1) the intensification of the social, economic and human problems caused by unprecedented population explosion which has created the human predicament to choose between a concerted population control and pervasive social disorder; (2) the practice of increasing transplantation of human organs from one body to another and growing experimentation and practicability of genetic selection with a view to determine qualitative composition of human beings resulting in complex moral and social legal problems; and (3) the growing realization that man's mastery of nature is beginning to threaten the very existence of human society.⁵ These factors, encouraging interference with human life, have underlined the need of the limits as well as the methods of man's interference with the Nature and particularly with all forms of life, with the duration of life, with the qualitative manipulation of life, and

2. Gary B. Gertler, "Brain Birth : A proposal For Defining When a fetus Is Entitled to Human Life Status" *Southern Cal. Law Rev.* vol. 59 (1985-86), 1061-1078.
3. See Gruman, *An Historical Introduction to Ideas About Voluntary Euthanasia : with a Bibliographic Survey and Guide for Inter-disciplinary Studies*, Omega, (1973) vol. 4, p. 89; The word "euthanasia" is derived from Greek and originally it meant "good death". The meaning has expanded in recent years. In its precise meaning, it is the desideration of religion as any morally or ethically based social policy that has to do with death. See Louisell, *Euthanasia and Biathanasia : On Dying and Killing*, *Cath. Uni Law Rev.* vol. 22, 1973, 723.
4. See John A. Robertson, "Embryos, Family and Procreation Liberty : The Legal of the New Reproduction," *Southern California Law Rev.* vol. 59, 1985-86, pp. 939-1041; Marcia Joy Wurmbbrand, *Frozen Embryos : Moral, Social and Legal Implications* idem, pp. 1079-1100, *Yale Law Journal*, vol. 33, 1973-74, 1632-1664.
5. W. Friedmann "Interference with human Life : Some Jurisprudential Reflections" *Columbia Law Rev.*, vol. 70, 1970, 1058-1077.

with the regulation of reproduction, limitation of births, abortion and sterilization. The importance of the sanctity of life requires imposition of legal prohibitions on different ways of interfering with human life as is illustrated by the laws controlling conception, sterilization and artificial insemination, and the laws relating to abortion, suicide and homicide. These have however indeed generated a lot of debate.⁶

This paper proposes to confine itself to raise issues relating to the question : whether the preservation of life is so important that it has to be maintained at all costs even if a person, who is terminally ill, finds life unbearable because of excruciating suffering and does not have even a distant hope of any qualitative change in his condition. In recent times, the issues of mercy-killing, voluntary or involuntary, has raised a host of issues-medical, ethical, economic, legal as well as theological-raising the question whether or not self-death or mercy-killing be allowed.

Revolutionary advances in bio-technology and medical sciences have enabled modern medicine to maintain patients almost indefinitely with some level of life. It permits the maintenance of life beyond the point where some patients would not like. As a result, the myriad questions which arise are : In what circumstances patients have the right to die in peace and with dignity ? Which patients should be assisted by medical technology and to what extent ? Should the patients be compelled to linger on with the vegetative states of existence by being artificially nourished and ventilated ? What are the criteria or standards to decide termination of life-saving treatment ? Who is to decide on the termination of the treatment ? What is the procedure for making such a decision ? What kind of protection can be provided to the physician for immunity from civil and criminal liability ? How to protect the individual patient against himself and also the third parties, like the surviving adults and minors and the fellow patients ? Can a critically or terminally ill patient decline an on-going life-saving medical treatment in case of uncertain outcome ? Whether the State can compel such a patient or his family in case of his being incompetent, to go through a medical treatment which in effect is only prolonging the process of dying rather than preserving the life ?

Little attention has been paid in India on these complex issues which have brought into focus interdependence of legal, medical, and ethical decision making. Lawyers and doctors are using their own terminologies and have their own concepts. The doctors, the families

6. Stewart G. Pollock, "Life and Death Decisions : Who Makes them and by What Standards", *Rutgers Law Rev.*, vol. 41, 1988-89, 505-540.

of the terminally ill patients and the law are either letting the patients die, or prolonging their death and inflicting upon them the suffering and anguish of undignified death. If so, terminating medical treatment seems right thing to do and it is wrong only when a patient is intellectually and emotionally responsive but disabled. Hence a movement in favour of legal recognition of the right to die in certain prescribed circumstances, has gained some momentum in technologically advanced countries.⁷ In India also the Society for the Right to Die with Dignity has been active for some time and has been agitating in favour of the recognition of the right to die. An International Conference on Life, Suffering and Death held in Delhi in 1986 had also highlighted the importance and the need of recognition of the right to die with dignity.⁸ A bill was also introduced in the Maharashtra Legislative Council in 1985 which sought to provide immunity and protection to physicians and surgeons who withdrew life sustaining treatment from the terminally ill patients at their wish. This bill was supported by Minoo Masani. A similar bill was also tabled in Parliament by B. V. Patel on July 26, 1985, but strong and divergent views on the subject stalled the emergence of any consensus on this issue.^{8a}

Considering the complexities of the issues involved in the matter and in the context of widely divergent religious, social, moral and legal perceptions, there persists a kind of dilemma before the human society whether the society should only allow the death to occur in its natural course, or cause it deliberately and give legal sanction to the whole idea in properly defined situations. Undoubtedly, a very serious interdisciplinary debate is required and due attention is to be paid for arriving at a clear and proper comprehension of mercy killing/self-death/euthanasia as a socio-legal concept. We in India can learn a lot from the experience of the Western countries in this regard before giving legal sanction to euthanasia and prescribing adequate measures against the abuse or misuse of the contemplated provisions by unscrupulous parties, self-seeking relatives and doctors. Besides, the protection of the varied patents, ranging from the malformed and invalids to the lunatics, has to be ensured by

7. Walter W. Steele Jr. and Bull B. Hill Jr. "A Plea For a Legal Right to Die", *Oklahoma Law Rev.*, vol. 29, 1976, 328-348.

8. This Society was established in Bombay in 1981 by M. R. Masani and several other distinguished Indians for mobilising public opinion in favour of euthanasia. The Indian Society for the right to Die with Dignity.

8a. Maharashtra Administrative Gazette, Extraordinary, 11 July 1985, pp. 255-259, see Yogesh Tyagi, "Euthanasia, A Policy-Oriented Approach", *IJIL* vol. 25, 1985, 544-553.

the law on the subject. The fact remains that euthanasia, cannot be swept under the carpet for far too long time. A public awareness of the issues involved in the complex problem is necessary for mobilizing rational public opinion in favour of euthanasia before the law steps in as it has been done in case of giving legal sanction to abortion. The need for a rational legal measure is urgent. In India, life is not valued much and so euthanasia can be exposed to serious abuses in many situations like dowry, female infanticide and other atrocities on women and children and the poor sections of the Society.

II. Revolutionary Advances in Medical Science and Technology and Changing Concepts of Life and Death

Tremendous advances in medical sciences and proliferation of revolutionary devices in bio-technology are rapidly transforming the developed nations from a death exploring society to a death-denying one. The prolongation of life by medical facilities in the west has created unique problem of the advanced aged which is, in consequence, straining the resources of the institutions responsible for the health care of the aged people.⁹ For the aged people, while the aging process has been delayed and their prolonged living is adding mounting burden of the society, dying process can be long and frightening with a slow machine-filled death and often at the astonishing cost. With the proliferation in revolutionary devices that can artificially maintain life long after spontaneous bodily functions have ceased, a phenomenon of multi-faceted changes in family and institutional structure has been taking place replacing the traditional social security system by the new one to take care of the advanced aged people. Besides, modern medicine has been equipped with devices to maintain patients almost indefinitely with some level of life beyond the point when some patients would not want to live.

The new medical technologies have revolutionized human experience in the area of birth and death. For them, births and deaths are no more taking place in the privacy of homes as these have been relegated to hospitals. This resulted in the phenomenon of a scenario in modern hospitals where a large number of fragile and bewildered patients are found to be gasping for the last breath with all kinds of gadgets and numerous devices connected to different parts of their bodies while their relatives and the family members go through a real anguish of witnessing helplessly a long and indefinite period of slow and undignified death of their near and dear ones. In the cases of the terminally ill or the incom-

9. Tracey L. Merritt, "Equality For the Elderly Incompetent—A Proposal For Dignified Death : *Stanford Law Rev.*, Vol. 39, 1987, 689-736.

petent patients, they seem to be lingering on in a persistent vegetative state which is artificially nourished and artificially ventilated. Life prolonging process by means of modern devices includes medication as well as artificially or technologically supplied nutrition, respiration and hydration. It creates a dilemma for the doctors when death can be either, indefinitely prolonged by artificial maintenance of heart, lung and nourishment functions, or it can be precipitated by termination of the medical treatment. This dilemma arises in the cases of the terminally ill patients as well as when a malformed baby is born who after sometime would die of its own without pain, if deliberately neglected, thereby saving the family the ordeal of suffering years of expenses and the torture of bringing up a deformed and retarded child. It is such situations that the terms like euthanasia, mercy-killing and self-death have been used in connection with the conscious and deliberate decision to put a patient to painless death with a view to ending his or her suffering.¹⁰

Euthanasia really means a gentle, easy and happy death which every one would like to have for oneself rather than lingering on interminably with excruciating suffering for an indefinite period. This term has now come to mean a deliberate life-terminating act, or a deliberate omission of life-prolonging act in respect of an incurable patient in his own interest as well as of his own family which has the trauma of merely watching their dear patient who is kept alive only in name. This process of providing relief to the patient as well as his family is crudely termed as mercy-killing and it is indeed a result of modern advances in medical sciences.

In the past, the family, the doctor, or the patient himself, was never confronted with an agonizing decision of making a choice as to whether or not to terminate a life by disconnecting or switching off an equipment which alone had prolonged the life. Merciful killing or merciful release from mental and physical torture with a view to providing a relief to the patient, as well as to the family going through the ordeal of tending to the close relation, may appear as the best thing for all concerned, yet, it appears harsh and shocking enough to cause one to shrink from the very thought or deed. The phenomenon of euthanasia may be looked upon sometime as a necessity and some time only a convenience, particularly for those patients who are the victims of medicines in our technocratic new world. In cases of major road accidents involving serious head injuries, doctors may find that even after

10. Reeves "When Is it Time to Die? Prolegomenon to Voluntary Euthanasia," *New England L. Rev.* vol. 8, 1973, 183; E. Kubler-Ross, *On Death and Dying*, 1969.

a long struggle though they may manage to keep the victims alive, yet these patients have no chance of complete recovery, either mental or physical. Similarly, in terminal cases, euthanasia by omission is a reality as most doctors appear to favour withdrawing of life supportive systems if the patient in their opinion is in irreversible coma.

In the United States, several states recognize "passive" euthanasia, while in many countries in Europe and in the United Kingdom there is a strong movement to give legal recognition to euthanasia. But legal systems in general appear to have apparently relinquished the decision making role in respect of withdrawal of life supportive systems to the attending physicians who have no standards to guide them. In this situation, the practice of euthanasia as omission amounts to one violating the letter of the homicide laws. Such acts of doctors, as withdrawing life supportive system in cases of terminal patients, are illustrative of criminal homicide carrying sanctions, yet few doctors or relatives are prosecuted for the illegal practice of euthanasia, whether resorted to at their own discretion, or on the request of the patient or his family. It is tantamount to homicide, in the former cases, and to suicide or attempt to suicide in the latter cases which in either case is a criminal offence. The question is: whether state can compel a patient to undergo a medical treatment which prolongs the process of his death and the suffering for him and his family? Besides, the line between withholding a treatment at the patient's request and active administration of drug to terminate life, is difficult to draw and may seem arbitrary, particularly so, in the case of the affirmative action of disconnecting the life-sustaining equipment, or placing a poison capsule within the reach of the patient. Both acts fall in the spectrum between passive withholding of the treatment and active administration of a fatal drug.

It is because of the advances in medical sciences that today a choice is available between allowing a life to end or to extend it far beyond what the body and mind of the patient would tolerate. The ability of Medical Sciences on this respect gives rise to this new phenomenon of intervention with life permitting or not allowing it to ebb out in its natural course. The power of the medical sciences to conquer or forestall dying has led to an overemphasis on vanquishing death as the foremost objective. The goal of relieving suffering becomes fundamental when the battle against death is futile. What is important is that legal standards must reconcile the goals of conquering death and of relieving with a view to ensuring a humane and dignified death of the patients.

In fact changes in the very concept of death have been brought about by medical advances which, in addition to the "cardio pulmonary"

death in the event of irreversible cessation of heart and lung functions, also speak of "neocortical" death with the loss of cognitive functions when cognitive functions cease with irreversible cessation of all functions of the entire brain including the brain stem.¹¹ Law has to take cognizance of the neocortical definition of death given by mechanicians by giving it defacto recognition and by allowing private decision to withhold/terminate medical treatment as well as nourishment in the cases of irreversible non-cognitive patients.¹² At present, because of conflicting concepts of death enunciated by the legal and medical sciences, complicated issues are involved in the dilemma of death.

We are aware of the technological imperative which enjoins that the very existence of a technique or technology strongly impels its use. Technological innovations indeed require organizational and societal adaptations as the conditions of the operation of technological structures demand restructuring of their environment.¹³ We are coming across unprecedented advancement in technologies of all kinds as a result of which technological progress has gone out of control in our times. The adaptation of technologies is occurring without planning for them and without evaluating their virtues and vices. This has happened in the area of transport and communication as well as in the sphere of medicine. Technical systems, having been built and commenced their operation, do not respond positively to human guidances a result of which they become severed from the goals, purposes and needs originally set for them. Medical sciences and technologies have indeed enabled doctors to cure many ills, ameliorate many others, and at least delay the progress of various killer diseases. These have, on the one hand, beneficially increased the efficacy of modern medicine and surgery, but they have also contributed to interventionist instinct or a change of attitude in the

11. Bernet, Culver and Gret "On the Definition and Criterion of Death in theory and Practice, *Hastings Centre Rep.* vol. 12 (1982) 5 Younger and Bartlett, "Human Death and High Technology The Failure of Whole-Brain Formulation", *Annals of International Medicine* vol. 99, 1983, 252-253. Bernal and Gret "On the Definition and Criterion of Death, *Idem*, vol. 9 (1981), p. 389.
12. David Randolph Smith, "Legal Recognition of Neocortical Death" *Cornell L. Rev.*, vol. 71, 1986, 850-888. In neocortical death the critical elements of the central nervous system are destroyed and the patient is left in irreversible unconscious condition due to brain damage resulting in persistent Vegetative state. see J. Posner, "Coma, and Other states of Consciousness: The Differential Diagnosis of Brain Death", *Annals of NY Academy of Sciences*, vol. 315, 1978, 215-227.
13. Langdon Winner, *Autonomous Technology, Techniques Out of Control As a Theme in Political Thought*, 1977 100; see also J. Ellul, *The Technological Society*, (1964).

medical profession to prefer to over-diagnose and over-treat rather than admit failure and refuse to intervene. The interventionist orientation of the medical profession sees its fraternity as scientifically oriented problem-solvers with high-tech treatment and sophisticated technologies at their command. It has developed excessive faith in the medical intervention and so the doctors tend to view the death of a patient as their personal defeat rather than an eventual inevitability to which they and their patients must submit. As result of this, the denial of death and heroic form of intervention have become the status quo. While the resort to aggressive intervention, in place of fatalistic passivity, may be justified in cases of uncertain outcome, it seems uncalled for simply to continue support to the purely biological functions of the vegetative patients.¹⁴ Infact to prolong such life uselessly, when the personal questions of freedom, knowledge, and self-determination, self-control and responsibility are non-existent, is to attack moral status and dignity of person.¹⁵

New medical technologies were originally developed and adopted in order to solve specific problems or to benefit specific group of patients, while they are being used now on additional groups of patients for whom they were not originally intended as they would not benefit them. For example, cardiopulmonary resuscitation (CPR) was initially developed to save otherwise healthy persons whose heart-beat and breathing failed following surgery, or as of result of drowning or unexpected catastrophic events. CPR was apparently not intended for prolonging the death period of the terminally ill patients. This technology or technique is obviously being misused or overused in order to save virtually all deaths. This has also happened with other medical devices like artificial ventilation, artificial feeding and various other techniques. These were originally developed to assist potentially curable patients in crisis and not to linger on the death process of the patients in persistent vegetative state. This is for the reason that the factor of uncertainty and the technological imperative (the existence of a technology or technique strongly inclines persons towards its use) have combined to create a cycle of commitment to continuing treatment of even terminally ill patients in deference to respect for life. Thus medical technology has now gone out of human control and, because of conspicuous lack of organizational and environmental adaptations to the innovations, malpractive fears

14. Norman L. Cantor, "A Patient's Decision to Decline Life Saving Medical Treatment: Bodily Integrity as The Preservation of Life", *Rutgers Law Rev.*, vol. 26, 1973-74, 228-264.
15. Fletcher, *Morals and Medicine*, 1954, 172-210; Phillip Aries, *Western Attitude Toward Death*, 1924, 12-86,

reinforce interventionist medical training, institutional Prastige requires possession of high tech equipment, and new procedures have altered the perception of medical problems.

In the twentieth century, the concepts of births and deaths have been revolutionized by bio-technological advances which have indeed complicated decision-making in matters concerning procreation, organ-transplants, and the termination of medical treatment.¹⁶ These changes have brought into focus the interdependence of legal, medical and ethical decision-making. For example, recent developments in procreation, like artificial insemination without engaging in intercourse with a male, and fertilization occurring outside the womb of the birth mother through the transfer of a fertilized embryo from one woman to another or through in-vitro fertilization, have caused changes in the matrix for decision-making since the legal rules concerning procreation are no more confined to the province of the family law.¹⁷ In the United States, the constitutional right of marital privacy, of the individual married or single, has been upheld to be free from unwarranted governmental intrusion into matters so fundamentally affecting a person as a decision whether to bear, or beget a child.¹⁸ This right of privacy is also held to encompass the right of a pregnant woman to choose whether or not to have an abortion, and it implicitly acknowledges her right to end the life of the fetus.¹⁹ Similarly, in termination of treatment cases, American courts have upheld a patient's right to terminate his or her treatment subject to the rights of innocent third parties such as the patient's children.²⁰ As regards that part, which concerns merely himself or herself, the person's independence has been proclaimed of right, absolute in the matters of protection as well as termination of treatment. As regards the matters of organ transplants under the Anatomical Gift Act (1987), which has been adopted in all fifty states of the United States, the American Courts have been moved by several factors which include the critical need of the donee for the organ, the minimization of risk to the donor, the absence of acceptable alternative sources, and the accrual psychological benefits to the donor from the donation because of psychological

16. Nancy k. Rhoden, "Litigating Life and Death" *Harvard Law Rev.*, vol. 13, 1989, 375 446 at p. 426.

17. John Robertson, op cit note 4 : Gary B. Gertler, "Brain Birth : A Proposal For Defining when a Fetus is Entitled to Human Life Status", *S. Cal. L. Rev.* vol. 59, 1985-86, 1061-1078.

18. *Eisentadt v. Baird*, 405, US. 438 (1972).

19. *Roe v. Wade*, 410 US, 113 (1973).

20. *In re Farrell*, 108 NJ 335, 352, 529 A. 2 d 404, 417 (1987).

dependence on the donee for the existence of strong family ties.²¹ The American courts have stressed the principle that the organ donor's wishes should be honoured whether the donor is dead or alive. When there are more patients in need of transplantation than there are organs available the selection of patients becomes literally a question of pronouncing death sentence upon those to whom organ transplantation is denied.

The issue of the right to die for the terminally ill patients raises critical considerations which are in the preservation of life, whether viewed as that of the particular patient or of the sanctity of all life, the prevention of suicide and homicide, the concern about protecting the integrity of the medical profession in termination of treatment in the patient's best interest in the absence of the express wishes of the patient, his family or guardian; and the protection of the patient's children.²² However, in this area complex legal issues are linked with death which triggers important legal consequences relating to marriage, business, partnership, succession, insurance liabilities to pap death benefits, and more recently even a hospital's right to remove the deceased's organs for transplantation.²⁴ Since criminal liability for homicide depends upon the death of a person, it is of great significance that law and medicine should have a precise conception of when does death occur and what exactly the term "death" means.²⁵ It appears that Indian law has yet to undertake the definition of death in terms that take into account the new developments in artificial life-support systems and organ transplants. Legal systems do define death, but they have not adequately responded to the nagging uncertainties caused by the development of sophisticated life support technologies.

The questions which may arise before the courts in connection with birth and death are :

21. David Randolph Smith, "Legal Recognition of Neocortical Death" *op cit* *Cornel L. Rev.*, vol. 71, 1988, 854 858
22. Childress, Artificial and Transplanted organs *Bio Law*, 813, 1.2 4, (1981).
23. Stewart G. Pollock, "Life and Death Decisions : Who Makes Them and By What Standards ?" *Rutgers Law Rev.*, vol. 41, 1988-89, 514-40.
24. Wanzer, Adelstein, Crauford, Federman, Hook, Moertel, So far, *et al*, The Responsibility Towards Hopelessly Ill Pat ents, *New Eng. J. Med.* vol. 310, 1984, 955, 959.
25. The IPC defines "Life" denoting the life of a human being unless contrary appears from the context and "death" denoting the death of a human being unless contrary appears from the context. See for comparative study Silving, "Enthanasia, A study in comparative Criminal Law", *University of Pa Law Rev*, vol. 103, 350,

At what stage in the process of birth a foetus becomes a corpse? Is it a murder to kill a child in the womb or in the process of leaving a womb? There are at present no certain answers to these questions in particular as to what moment life ends. Is one incapable of being killed if his heart has stopped beating, but a surgeon confidently expects to start it again by an injection or mechanical means? Causation of death is a question of both fact and of law. If killing is merely acceleration of death then should some factors which produce acceleration be ignored?²⁶

In case A shoots B in the head. B is rushed to the hospital place on a respirator and he is administered medication to maintain his blood pressure. The neurologist examines B and finds an irreversible cessation of all functions of his entire brain. Following this, with the consent of B's family, the treating physicians remove B's organs for transplantation purposes, and the respirator is then disconnected in consequence of which B's breathing and heartbeat stop. In this case, interestingly the questions which arise are: Has A committed homicide? Were the medical procedures performed by the physician a superceding cause of death? It was argued on behalf of A that though he was guilty of shooting the victim B in the head, he was not guilty of murder because he had not caused the death of the victim. According to the traditional definition of death as cardiopulmonary (irreversible cessation of heart and lung function), A was not guilty of murder unless the whole brain death could properly be included within the legal definition of death. The cardiopulmonary functions did not cease until the artificial means of support were in use.²⁸

This example is illustrative of growing need to resolve the conflict between the conventional view of death as the irreversible cessation of heart and lung functioning and medical profession's growing reliance and acceptance of brain death criteria. In the United States, a substantial number of cases explicitly or implicitly recognize the brain death definition because the application of the traditional cardiopulmonary standards produce unjust results.²⁹

26. Smith and Hogan, *Criminal Law*, (1978 4th ed) 269-274. G. Williams, *The Sanctity of Life And Criminal Law*, 1957.

27. *People v. Eulo*, 63 NY 2d, 341, 472 NE 2d 286, 48 2, NYS. 2d 436 (1984).

28. 71 NJ 10 35, A 2d, 647 (1976), cited by Steward G. Pollock, *op cit*, pp 513 514 See David Randolph Smith, "Legal Recognition of Neocortical Death" *Cornell L. Rev.* vol. 7, 1986, 850-888 Bernal, Culver & Gert, "Defining Death In Theory and Practice", *Hastings Cent. Rep.*, vol. 12, 1982, 5.

29. Bernal Gert, "On the Definition and Criterion of Death", *Annals of International Med.*, vol. 94, 1981, 389, J. Posner, "Coma and other States of Consciousness" "The Differential Diagnosis of Brain Death", *Annals of N. Y. Acad of Sciences*, vol. 315, 1978, 215-217.

Although heart and lung functions typically cease within hours or a few days after the brain death but cardiopulmonary activities can continue for many years in neo-cortically dead patients. *Karan Ann Qnilan case*³⁰ is the most familiar example of this phenomenon. Neocortical death destroys critical elements of the central nervous system and leaves the person in an irreversible condition without any awareness, thought, of feelings.³¹ If neocortical functions are indeed the key to human life, then the loss of neocortical functions—the capacity to think, feel, communicate, or experience the surrounding environment—should be a key to the human death. Since medical technology has the ability now to sustain life when the ability to think is gone, it is necessary that society must also change its laws.

In our times, mere biological existence, therefore, raises several problems for law and medicine. The most troubling questions are raised in cases involving patients who have lost higher brain functions. Whether withdrawing artificial life support and feeding by intravenous nourishment is justified? Can the family decide to terminate life sustaining system in case of incompetent patient? The right to privacy and the right to die rationale, though originated in cases of irreversibly non-cognitive patients, the rationale has also been extended to terminally ill, old and mentally impaired patients. This has resulted in the development of a distinct right to die jurisprudence in the Western countries.³² With the cases and statutes permitting private decision to terminate life-support systems of patients in a vegetative life and with the defacto recognition to neocortical death, such patients are presently being put to death by hospitals, by relatives or guardians, and the courts under the logic of euthanasia have substituted judgement in the cases of incompetent patients. The problems entailing this situation relate to subsidizing biological maintenance of neocortically dead body when the family desires such maintenance but cannot afford it. Distinction between legal from biological death has profoundly altered the moral and legal dilemmas in tragic choice cases. When physicians determine to terminate the life support systems, will the families and physicians be forced to obtain the judicial approval to terminate life-supportive systems? Will they be compelled to end the biological existence of a family member in order to

30. *In re Quinlan*, 44 U. S. L. W, 2462 (1976).

31. See Ingver Brun, Johanson and Samuelson, "Survival After Severe Cerebral Anoxia with Destruction of the Cere Cortex : The Appallie Syndrome" *Annals of NY Acad of Sciences*, vol: 315, 1978, 184-185.

32. Nancy K. Rhoden "Litigating Life and Death", *Harvard Law Rev.*, vol 102, 1989 375-446.

achieve the financial and legal results that follow at the termination of death? In cases of neocortical brain deaths, would families, guardian, and courts be required to establish what unconscious patients had thought about death? Presently, the law appears grossly inconsistent, anomalous and unsound to resolve many complex issues arising out of the termination of the life of patients. On the one hand, arguments in favour of euthanasia seem appealing on the ground that the patient is relieved of the indignity of life endured without the essential faculties or self-control; on the other hand, legal acceptance of self-death or active administration of death would undermine sanctity and respect for life and would lay the foundation for involuntary euthanasia. Passive withholding of the medical treatment of a patient, or the active administration of death at the patient's request and, in case of his or her incompetence, at the request of the family, or the decline of the patient to refuse life-saving medical treatment, are the variety of the forms of euthanasia. In the absence of legislative guidance and judicial determination, the patient's quality of life has indeed significantly declined and physicians still remain the sole decision makers.

III. Need of a New Legal Therapy Rational Decision-Making

The cases involving the assertion of the right to die require development of legal standards governing termination of life of an incurable patient. The acceptance of the medical profession's presumption in favour of continued treatment places a heavy burden on the families seeking to terminate medical treatment and also on the competent patient who fully comprehends with agonizing anguish that the only way to relieve him of the indefinite and unbearable suffering is active intervention to terminate the life. Decisions to stop medical treatment are not objective in the exact sense of diagnosis of cancer or measurement of temperature. Any objective decision must weigh the benefits and the burdens of the patient's life rather than merely his or her longevity. The acceptance of medical *status quo* which is strongly pro-treatment and thus anti-family in cases of conflict, endorses the idea that, unless the family slowly, painfully, and expensively, challenges the decision in the law courts, there is no remedy for the patient to have a peaceful and expeditious death. On the other hand, family decision under physical and emotional stresses and in an uncertain and alien environment of a hospital or nursing home, is rendered difficult and is rather aggravated when the patient is incompetent to decide. In such situations the family may feel guilty in suggesting that the patient be allowed to die.

Besides, sometimes the conflict of interests in the family may activate the family members to wish the patient an early demise. If the

families cannot be given a blank cheque then the doctors must bear the burden of challenging the family's decision when they appear to be based on illicit grounds. In fact legislative and judicial guidelines are required for the balancing of interests. The object of avoiding prolonging the dying process is valid if the patient, the family as well as the physician realize that termination of the medical treatment is the best opinion. This requires legal standards reconciling the goal of conquering death and relieving the suffering, of prolonging the life and ensuring humane and dignified death. Also, stringent procedures may be laid down for termination with a view to avoiding abuses and misuses of the termination. A broader right to die including the right to decline medical treatment requires to be defined.⁸¹ Allowing a dignified and peaceful death requires necessary guidelines for (a) a legal determination of a patient's incompetency for expressing a desire to terminate his or her life and a judicial appointment of a guardian; (b) a categorical medical determination that the patient is dying being terminally ill and there is no possibility of restoring the quality of life which he had before; (c) a determination that a clear evidence exists of the competent patient's intent to refuse treatment under the specified circumstances which should be binding on the family and the physician.

Many critical issues arise as to under what circumstances a patient has a right to die. These relate to the standards for deciding termination of life-sustaining treatment; the identity of the decision makers, the procedure for making such decisions; the immunity of the physician from civil and criminal liability; the suitability of the family members in case of an incompetent patient to make a substituted judgement, the rationality of using the entire arsenal of modern medicine and medical devices in the maintenance of the terminally ill patients who are permanently unconscious or surviving a vegetative life; and last but not the least, identifying the decision maker as to the termination of treatment when the patient family and physician are in agreement.

Suitable legislative enactment is indeed required to take care of the problems created by medical technology and to save the patients from authoritarian and depersonalized medicine and from the harmful effects of a doctor-patient relationship which is now not based on mutual exchange of information. The law must endorse unequivocally the patient's right to decide what will happen to his body by compelling adequate disclosure of medical information and protecting the patient's right to participate in medical decisions. An increased information following a partnership between doctor and patients relating to the

patient's diagnosis and treatment may contribute to making personalized choices of treatment and other alternatives offered by scientific medicine.³³ An informed consent may enable the patient to rely with confidence on the doctor's discretion.

Denial of death and heroic form of intervention to prolong the death process should not be allowed to become *status quo* in cases of uncertain outcome. Human society need not preserve human life at all costs and should balance the loss of life against the benefits gained.³⁴ All arguments against euthanasia or self-death are premised on the preservation of life at all costs. There are instances where human life can be taken without criminal consequences e.g. suicide is one instance of self-chosen death and is one of the leading causes of death. Self-defence is acceptable to allow one to kill another in self-defence and even a third person is allowed to kill an aggressor to save a life. War, capital punishment, and abortion are other examples of legally sanctioned killing. Then why a miserable suffering patient be not allowed to save himself from further pain and indignity of inhuman existence?

In a well-known American case of *requinlan*³⁴ some judicial guidance was provided on the problems addressed in this paper. The father of Karen Quinlan had sought declaratory relief to permit the termination of life support system for his daughter who was lying in a hospital in a chronic persistent vegetative state without any cognitive functions. It was conceded by the treating physicians that the medical standards did not permit the termination of life support-system. The court held that the guardian and the family of the incompetent patient could request termination of life support measures when the patient had no reasonable possibility of ever emerging from the comatose condition to a cognitive spient state. There must be legal provisions to guide the courts to decide the complex problems.

Indian law should provide for legal sanction to causing death of another or aiding another to one's own death as an act of euthanasia under specified circumstances and for such act a physician or licensed euthanasist should not be held guilty of man slaughter. Also, a person who is mentally competent and fully understands the circumstances which cause him to seek death and also understands the prospects of his conti-

33. Norman L. Cantor, A Patient's Decision to Decline Life-Saving Medical Treatment: Bodily integrity versus The Preservation of Life, *Rutgers Law Rev.*, vol. 26, 1972-73, 264

34. "Restructuring Informed Consent-Note, *The Yale Law JI*, vol. 79 1970, 1533-1576. Marcus L. Plante, "An Analysis of Informed Consent", *Fordham Law Rev.*, vol. 35, 1967-68, 639-672,

nued survival, should be deemed competent to request euthanasia. In order to legalise the act of enthanasia in case of a terminal patient choosing self-death and who has lost practically every vestige of human personhood, a competent person should be the treating physician or a licensed euthanasist who may perform euthanasia in not less than 24 hours after a written request from the competent patient seeking self-death provided that the patient does not revoke the request. In case of an incompetent patient, euthanasia may be performed by the treating physician or a licensed euthanist in not less than 24 hours after an order for euthanasia has been issued by a District Court where the non-competent patient resides. Any person may have a right to petition a District court for an order for euthanasia in a prescribed manner. A person to whom euthanasia has been performed should not be deemed to have died a violent or unnatural death.

If legislative provision is made sanctioning enthanasia, it would facilitate death when death is really a better alternative. Adequate safeguards can be built up by giving maximum opportunity to all parties objecting to euthanasia for being heard and by not giving final authority in the decision-making to one single group. The final authority must rest with a well-informed judge. Although difficulties and unpleasantness are inherent in the concept of euthanasia itself, but without legalized euthanasia, it is indeed difficult and painful to refuse a helpless and hopeless patient's request to die when the doctors know well that only death will be a sure relief and blessing to the unfortunate patient and also to his or her family.

This subject of self-death requires a humanitarian approach and should be treated for more than a mere moral or legel issue to be a matter of concern to not only doctors, lawyers and criminologist but also to scholars of social scier ces. No law and no society should remain immune to the reality of self-death and commonsense which tell us that mercy and compassion towards the patient seeking death should be given greater weight than the abstract theory of criminal homicide or of disparity between individual right and the interest of state in preserving and sanctifying human life.

35 "The Tragic Choiee : Termination of Care for Patients in a Permanent Vegetative State" *N. Y. U. Law Rev*, vol. 51, 1976, 293-294.

AMNIOCENTESIS : SOCIO-LEGAL RESPONSE AND PROFESSIONAL ETHICS

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A. Introduction :

It was observed in 1983 that "pre-natal diagnostic technologies have expanded at an astounding rate : more than 190 metabolic defects and congenital disorders can be diagnosed prenatally, in addition to an increasing number of chromosomal aberrations."¹ This observation simply magnifies the prevalent use of diagnostic methods to detect defects or disorders in the developing foetus. There are various methods applied so far for this purpose, e.g., amniocentesis, chorionic villi sampling, ultrasound imaging, fetoscopy and alpha-fetoprotein screening—each having a specific purpose but distinct from the other in matters of time of application and others. A brief account to introduce the above methods is necessary in order to initiate discussion on pre-natal diagnosis and the legal regulation of the use of the techniques applied for the purpose.

B. Pre-natal Diagnostic Tests :

Amniocentesis is undertaken for detecting genetic or chromosomal disorder, inborn metabolic errors and neural tube defects such as spina bifida and anencephaly. For this test a small volume of the fluid of the mother's amniotic sac containing cells naturally shed by the foetus is obtained after the sixteenth week of pregnancy and the cells in the fluid are cultured to produce results in approximately six weeks. The most common indications for the application of amniocentesis are advanced maternal age, history of a previous pregnancy resulting in birth of a chromosomally abnormal child, cases of either of parents having or carrying any chromosomal abnormality, family history of Down Syndrome or other chromosomal abnormality, history of three or more spontaneous

abortions having occurred early in pregnancies or known to be associated with a chromosomal disorder, and history of previous children with multiple malformations.

Chorionic Villi Sampling is the test applicable in the eighth to tenth week of pregnancy. Chorionic villi, an early product of conception associated with and genetically identical to the embryo or foetus are biopsied during this test. The results of the test can be obtained in a day or so, but disorders like neural tube defects detectable by amniocentesis are not detected.

Ultrasonography is another test to visualise internal bodily structures of the foetus by reflecting ultrasound waves between bone and soft tissues. Foetal abnormalities such as neural tube defects including anencephaly and hydrocephalus and foetal sex may be diagnosed through this test.

Fetoscopy has been of considerable significance in pre-natal diagnosis for finding out disorders not detectable by other tests, such as haemophilia, but many of its uses can now be found in subsequently developed procedures. On the basis of the fetoscopy, however, surgical and microsurgical repair of the unborn can be usefully performed.

Alpha-fetoprotein Screening tests involve examining a sample of mother's blood in order to detect foetal products which are indicator of major foetal disorders such as neural tube defects. This test is, however simple and less invasive and serves only as a first stage in screening for neural tube defects.

A perusal of the various pre-natal diagnostic tests illustrates how highly interactive these tests are, and in cases when an adequate explanation of the foetal disorders is not found, recourse will be made to amniocentesis for further diagnosis. The costs, risk and limited availability of amniocentesis, however, restrict its use as a means of first resorts. In this paper, an attempt has been made to pinpoint the problems attendant upon the legal regulation of the use of pre-natal diagnostic tests—particularly amniocentesis—within the framework of the Medical Termination of Pregnancy Act, 1971 (hereinafter referred to as the MTPA) and the Maharashtra Regulation of the Use of Pre-natal Diagnostic Tests and Techniques Act, 1988 (hereinafter referred to as the Maharashtra Act).

C. Legal Regulation of the Use of Pre-natal Diagnostic Techniques :

Since the enforcement of the MTPA in 1972, a pregnancy may be terminated on several grounds including that of foetal indication as well. The relevant enabling provision of the Act is :

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1. U. S. President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioural Research, *Screening and Counseling for Genetic Conditions*, 1983, 32 Quoted in Bernard Dickens, "Abortion, Amniocentesis and the Law" (1986) 34 *Am. Jl. Com. Law*, 249.

a pregnancy may be terminated by a registered medical practitioner, if such medical practitioner is of opinion formed in good faith that there is a substantial risk that if the child were born it would suffer from such physical or mental abnormalities as to be seriously handicapped.²

Foetal indication for the sake of termination of pregnancy may prove to be a ground of paramount significance, as it has the potentiality to emancipate woman, her family and the society, at large, from the birth of a handicapped child. Although termination of pregnancy on foetal indication may be condemned by moral logicians and religious people on the ground that the would-be-handicapped child must come to the earth, and its termination would amount to an offence against God, the liberal abortion laws all over the world have accommodated the foetal indication, which presents indeed a legalisation of termination of pregnancy for defects not of the mother but of the unborn.³ This encloses quite a questionable approach of the law in entitling pregnant woman to terminate the would be handicapped child and in not providing the unborn any right to medicare and treatment for care of its handicaps. Still another moral question would naturally arise : Does the pregnant woman has an excuse only of terminating the would-be handicapped child in lack of facilities of medicare and others ? Nevertheless, pre-natal diagnosis becomes all the more desirable during pregnancy even if the practice of preconceptional testing of parents is not prevalent in the society. The use of pre-natal diagnostic tests in India involves a multiple of problems that can be pinpointed as follows :

(i) Any liberal law, like the MTPA permitting termination of pregnancy on foetal indication, presupposes that pre-natal diagnostic technique must be applied to ascertain the defects in the unborn. Application of the pre-natal diagnostic techniques, is accordingly a matter of woman's legal right to medical termination of pregnancy, which she may press upon to exercise. It may therefore, be a view that facilities for pre-natal diagnosis should exist along with those for medical termination of pregnancy (hereinafter referred to as MTP).

(ii) The test of a substantial risk of foetal indication enclosed by the MTPA falls short of being precise and makes free way for

2. MTPA, Section 3 () (ii).

3. Majority of the states of Africa, Asia and Oceania, Europe Middle East and North Africa, and Western Hemisphere that have legalised abortion during 1967-1988 include foetal indication as a ground. For details, see the I.P.P.F. Study Chart entitled Regional Developments in Abortion Laws, 1967-88.

medical practitioner's discretion to perform MTP after pre-natal diagnosis of foetal indication or not. If on the one hand, distinguishing risk from substantial risk for the sake of MTP is the major burden with the medical practitioner, on the other hand ensuring that the child given to birth would be free from any congenital abnormalities is the expectant natural anxiety of parents. It is important to mention that the risk of birth of a handicapped child, even not fitting into the test of substantial risk, may bring about injury to woman's mental health. but whether MTP would be available within the MTPA to her on the ground of injury to mental health in such cases is again problematic, as the MTPA permits MTP in cases of grave injury to mental health only and unless the injury is grave MTP is not possible. A legal recourse to remove any undue hardship to women availing of pre-natal diagnosis and MTP of foetal indication is as important as acknowledging registered medical practitioners about goal-oriented MTP on foetal indication, from time to time, by governments.

(iii) Permitting MTP on various grounds runs opposed to the unborn right to live alive and there are instances of legal inconsistencies when the MTPA is considered against The Transfer of Property Act, (section 20 whereby an interest in property can be transferred to an unborn), the Hindu Marriage Act, 1955 (Section 13 (i) (a) whereby an MTP at the instance of wife and without husband's consent may amount to cruelty entitling the aggrieved husband for decree of divorce)⁴ and the Maharashtra Act (section 19 (2) providing that the court shall always presume, unless otherwise provided that a woman who seeks the aid of pre-natal diagnostic procedures on herself for purposes not mentioned in the Act has been compelled to do so by her husband or members of his family, who shall, on conviction, be, liable to be punished for abetment of the offence for the offence for the same sentence and in that case the woman shall be liable to pay a fine of rupees fifty for each offence.

The last instance presents an example where the MTPA and the Maharashtra Act appear to be diametrically opposed in terms of the responsibility for MTP. It is noticeable that within the MTPA, it is the woman who is solely responsible for determining with aid and advice

4. *Saty v. Sri Ram*, A. I. R. 1983 P & H 252; *Sushil Kumar Verma v. Usha*, A. I. R. 1987 Delhi 86.

of registered medical practitioner, her choice to procreate or not and husband bears no right to deter her from undergoing MTP or he has no liability for MTP of wife, but within the Maharashtra Act the husband or family members have been presumed to be abettors of the offence of woman's seeking the aid of pre-natal diagnostic procedures for purpose other than those provided by the Act.⁵ It bears significance that the aims and objectives of the Maharashtra Act are preventing the misuse of pre-natal diagnostic techniques for pre-natal sex determination leading to female foeticide, and regulating the use of medical or scientific techniques or pre-natal diagnosis solely for the purpose of detecting genetic or metabolic disorders or chromosomal abnormalities or certain congenital anomalies or sex-linked disorders.⁶ Furthermore, the Act intends to regulate the use of specific pre-natal diagnostic procedures like amniocentesis or any other present or future techniques for the purposes mentioned above.⁷ Any legal enterprise like the MTPA or the Maharashtra Act is an off-shoot of the existing socio-economic-cultural conditions of the society, and accordingly if the MTPA was legislated to curb the growth of septic or illegally induced fatal abortions, the Maharashtra Act was legislated with a view to curbing the incidence of pre-natal sex-determination leading to foeticide. It is noticeable that in both the endeavours—the MTP or pre-natal sex determination woman is central and if for the MTP within the MTPA, the involvement of husband is considered not necessary, how far the liability, of husband and family members for pre-natal diagnosis of unborn's sex (leading to foeticide) is justifiable within the Maharashtra Act?

5 Section 4 (2) of the Maharashtra Act restricts the use of prenatal diagnostic technique by qualified person unless any one or more of the following conditions are fulfilled in each case namely;

(a) age of the pregnant woman being 3 years (b) history of two or more abortions or foetal loss (c) history of exposure to potentially teratogenic drugs, radiation, infection or hazardous chemicals (d) family history of mental retardation or physical deformities such as spastic or deaf-mute child or any other genetic disease (e) any other condition approved by the Appropriate Authority.

Section 4 (3) of the Act further provides that the pre-natal diagnostic technique shall be carried out under the Act solely for the purpose of any one or more of the following abnormalities, namely (a) chromosomal abnormalities (b) genetic metabolic disorders (c) haemoglobinopathies (d) sex-linked genetic diseases (e) congenital anomalies, and (f) any other abnormalities or diseases declared by the Appropriate Authority.

6. The preamble of the Maharashtra Act.

7. *Ibid.*

- (iv) At present there is no Central Legislation regulating the use of pre-natal diagnostic techniques in India. As the use of pre-natal diagnostic techniques may be desirable to safeguard woman's health or unborn's health, it may be included in the subject matter of population control and family planning included in Entry 20A of List III, of the Seventh Schedule to the Constitution of India. Centre and States may thus legislate on the subject. On the other hand, as the pre-natal diagnostic techniques are used to detect foetal sex leading to the practices of foeticide, the latter being dealt with by the provisions of the Criminal Law, the subject may accordingly be included in Entry I of List III of the Constitution. It is irony that except Maharashtra, no State legislature has legislated on the subject yet. A concerted attempt by central as well as State Governments to curb the incidence of foeticide following pre-natal diagnosis of foetal sex is an urgent necessity of the present times—particularly when termination of pregnancies is legally permissible.
- (v) With coming into vogue of the concepts of responsible parenthood and woman's liberation from traditional roles, woman's right to decide about parenthood is desirable to preserve not only individual woman's dignity but also to involve woman in the task of national construction and prosperity. The idea of woman's liberation is inconceivable unless woman has been guaranteed the sacrosanct right to life enshrined within Article 21 of the Constitution of India, embracing right to decide about planned parenthood—which will naturally call for the right to utilise pre-natal diagnostic techniques to ensure the birth of a healthy, wanted and congenital malformation-free child.

For implementation of a legal right a favourable environment involving responsive popular opinion, legal technology, infrastructures, and administrative set-ups are the most essential tools; it is, therefore, relevant to find out the receptibility of the law regulating the use of pre-natal diagnostic techniques, by examining the views of different sections of the society towards it.

D. Public opinion about Amniocentesis :

In a questionnaire⁸ based opinion-poll conducted recently in the

8. In order to collect popular responses to the purposes for which use of pre-natal diagnostic tests and techniques may be permitted, a question on the questionnaire was asked, which contained the following alternative replies; (i) to detect foetal sex (ii) to know about mother's health (iii) when medically desirable (iv) when the purpose is not to detect foetal sex (v) to know about foetal health.

District of Varanasi, it has been revealed that generally pre-natal diagnostic tests like amniocentesis and others are stated to be desirable when medically required (37.5%) and for knowing about foetal health (25.0%). Detecting foetal sex (19.0%) and knowing about mother's health (17.0%) have been stated to be desirable by comparatively smaller number of respondents. The trend implicit in the two majority opinions stated above has been followed by Hindu (42.2%) stating medical indication, 31.16% stating diagnosing foetal health), whereas Muslims (34.78% state detecting sex; 39.13% stating diagnosing regarding mother's health) and Christians (39.13% stating detecting sex; 34.78% stating medical indication) present majority opinions for detecting foetal sex, as well. Majority of forward backward caste respondents state that pre-natal diagnosis is justifiable for medical reasons and for knowing foetal or mother's health; majority of scheduled caste respondents on the other hand, state pre-natal diagnosis to be justifiable for detecting foetal sex (34.62%) and for knowing about foetal health (30.76%). Except majority of the rural respondents (39.39%) stating pre-natal diagnosis to be justifiable for detecting foetal sex, majority of the urban and rural respondents state the same to be justifiable for medical reasons and for knowing about foetal health. The merely literate high school passed, graduate (36.98%) and post-graduate respondents have majority opinion stating pre-natal diagnosis to be justifiable for medical reasons but there is the fewer graduate respondents (30.13%) who exceptionally consider such diagnosis to be justifiable even if it is employed to detect sex. Agriculturists, servicemen, students and businessmen have majority responses each stating pre-natal diagnosis to be justifiable for medical reasons. Likewise except the highest income group (above Rs. 3,000 p.m.) respondents opining for utilisation of pre-natal diagnosis for sex-determination, respondents of all income groups and no income group have majority preferences for use of pre-natal diagnostic techniques when medically required as well as for knowing about foetal health. Male and female respondents have minority views regarding the use of prenatal diagnostic techniques for detecting foetal sex; their majority views being related to medical indication and diagnosis for knowing about foetal health respectively. Amongst respondents of various age groups (i.e., 20 yrs, 21-40 and 41-60 yrs) and married and unmarried respondents, the view regarding utilisation of pre-natal diagnostic techniques for detecting sex has attracted very little support and the majority preference being related to medical need, diagnosis regarding mother's health, as well as diagnosis regarding foetal health. A graphic depiction of the statistics of the popular responses described above is presented on the next page.

E. Evaluation of Popular Responses and Concluding Observations :

As it has been revealed in the opinion poll, pre-natal diagnostic tests may be preferred by people for detecting foetal sex also. Furthermore, an attitude to employ the tests for sex determination may be nursed and induced by the factors, e.g., existence of prenatal diagnostic facilities, advertisements in this regard appearing in the dailies and other media, legalisation of abortion and availability of abortion services and not insignificantly the status of female child in midst of the rising dowry demands and incessant oppression and violence against women in the Indian communities. Desire for a male child holds a predominant place in the procreative attitude of people in all religions and every society-rural or urban in the country.⁹ The rural parents are more emphatic over having greater number of sons, who they expect, would help them in fields and earn money by their labour.¹⁰ The birth of a son is accordingly a matter of prestige or rejoice and is a premium to the family, whereas the birth of a daughter is an event of discount only. Such a view has been in vogue since long when low sex-ratio had resulted due to an effectual female foeticide practiced abundantly; the commissioner of the 1911 census of India had remarkably noted this.¹¹ In modern times as daughters are regarded as a heavy burden to their parents, it is very much expected that birth of a daughter would be intentionally and specifically avoided by parents. This would pose serious threat of sex-imbalance and would be an onslaught on the moral values relating to sanctity of life. Given a liberal law of abortion and the prevalent use of pre-natal diagnostic techniques, the MTPA is likely to be misused, alongwith the misuse of pre-natal diagnostic techniques. For example, in an Indian study it has been found out that amniocentesis test which is basically a test to detect abnormalities in the genetic constitution of the foetus is regarded primarily as a sex-determination test and after determining the sex, the female foetus is generally aborted for socio-economic reasons.¹² In such an environment it is urgently needed that the subjects of MTP and use of pre-natal diagnostic techniques are considered conjointly in the light of the suggestive remarks given underneath :

9. Sex preference of a male child holds significance uniformly amongst illiterate, low-educated, highly educated, Hindu, Muslim, Christians, Sikhs as well as respondents of all income groups. See Jagdish Chandra Bhatia, "Ideal Number and Sex Preference of Children in India (1978), 24 *Jl. Fam. Welfare*, 3.
10. In a report about reactions towards family planning and fertility in Southern India, it was reported that for a villager sons meant success, for sons provided a free labour force. See (1976) 3 : 4 *People*, 4. 5.
11. U. P. Sinhas, "Trends of Female Mortality in India in relation to Male Mortality," (1983) 30 *Jl. Fam. Welfare*, 54 at 59.
12. Gurmeet M. P. Singh and Sunita V. Jain; "Opinions of Men and Women Regarding Amniocentesis" (1985), 31 *Jl. Fam. Welfare*, 13 at 15,

- (a) there should be a uniform central legislation dealing with/ regulating medical termination of pregnancy and use of pre-natal diagnostic techniques, in the same enactment.
- (b) Right to medical termination of pregnancy as envisaged by the MTPA and right to use pre-natal diagnostic techniques for the sake of detecting disorders of any kind regarding women's or foetus's health should be regarded as woman's right to life guaranteed within article 21, of the Constitution of India.
- (c) Medical termination of pregnancy and utilisation of pre-natal diagnostic techniques should be regarded as the activities of family welfare and population control. Proper steps should be extended by the Governments-Central and State-to ensure the best facilities regarding the above.
- (d) The MTPA has given rise to a legal regime of MTP on the ground of foetal indication. It is thus desirable that at every hospital or place where Government authorises termination of pregnancy, facilities for pre-natal diagnosis should be necessarily provided. Governmental failure in providing adequate facilities for prenatal diagnosis at the said place or hospital, may amount to violation of woman's right to life or personal liberty as guaranteed under Article 21, Constitution of India.
- (e) As MTP interacts with pre-natal diagnosis, and the MTPA has a close bearing upon the law regulating use of pre-natal diagnostic techniques, it would be unsound and unreasonable to involve different standards of principles regarding responsibility or liability for MTP or misuse of pre-natal diagnostic techniques. If within the MTPA, the husband bears no right in matters of termination of wife's pregnancy, it is quite illogical to state that husband or family members shall be regarded as abetter of an offence of wife's seeking the aid of pre-natal diagnostic techniques for purposes other than provided by the Maharashtra Regulation of the use of pre-natal Diagnostic Techniques Act, 1988.
- (f) It is evident from social researches that pre-natal diagnostic techniques are likely to be misused for the purposes of foeticide of the female child. As sex-determination and foeticide both are operations to be conducted in woman's privacy, it would be unwelcome to intrude unreasonably upon woman's privacy by legal defere. Indeed, the attending physician, neighbourhood

- public and the woman undergoing operation can possibly help in mitigating or removing the misuse of the MTP and pre-natal diagnostic techniques for condemnable foeticide to a great extent. An educative and awareness drive should, therefore, be launched on mass-media by government to make medical profession, people specifically women, apprised of the medical aftereffects of the procedures like MTP and pre-natal diagnosis, and their other socio-cultural impacts on the society as a whole. Unless the status of woman is tremendously improved and medical profession takes care of the ethics and moral well being of the society, the misuse of MTP and pre-natal diagnosis cannot be regulated only by the arms of law.
- (g) The upper time limit for termination of pregnancy within the MTPA is twenty weeks. Any termination of pregnancy beyond the stipulated time period is illegal within the Act. On the other hand, the results of the most reliable tests like amniocentesis can be obtained only after twenty two weeks of gestation. The MTPA, likewise, must be amended to accommodate the provision for MTP till twenty two weeks of gestation. Otherwise, after sex-determination test the MTP would be performed illegally.
 - (h) Both the MTPA and the Maharashtra Act are hospital laws in as much as their enforcement is related to either hospitals or similar establishments. These enactments entrust the members of medical profession and the specialists belonging to allied disciplines of science to help the needy and qualified women-patients by performing the legally justifiable acts of termination of pregnancy of pre-natal diagnosis. In such a jural background medical practitioners and specialists are duty-bound to locate the genuin cases fitting into the terms and conditions of the law, before they extend their expertise-services. It must be accepted without doubt that the enforcement of the MTPA and the Maharashtra Act will always be subjected to the attitude of medical professionals and specialists. At a time when the existence of commercial trading in the treatment of patients-particularly the termination of pregnancy and pre-natal diagnosis cannot be ignored, the lack of a central legislation on the regulation of the use of pre-natal diagnostic techniques may amount to precipitating the misuse of pre-natal diagnostic techniques due to the inducing effects of sexy-like catchy and misleading advertisements on the services regarding pre-natal

- (a) there should be a uniform central legislation dealing with/ regulating medical termination of pregnancy and use of pre-natal diagnostic techniques, in the same enactment.
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- (c) Medical termination of pregnancy and utilisation of pre-natal diagnostic techniques should be regarded as the activities of family welfare and population control. Proper steps should be extended by the Governments-Central and State-to ensure the best facilities regarding the above.
- (d) The MTPA has given rise to a legal regime of MTP on the ground of foetal indication. It is thus desirable that at every hospital or place where Government authorises termination of pregnancy, facilities for pre-natal diagnosis should be necessarily provided. Governmental failure in providing adequate facilities for prenatal diagnosis at the said place or hospital, may amount to violation of woman's right to life or personal liberty as guaranteed under Article 21, Constitution of India.
- (e) As MTP interacts with pre-natal diagnosis, and the MTPA has a close bearing upon the law regulating use of pre-natal diagnostic techniques, it would be unsound and unreasonable to involve different standards of principles regarding responsibility or liability for MTP or misuse of pre-natal diagnostic techniques. If within the MTPA, the husband bears no right in matters of termination of wife's pregnancy, it is quite illogical to state that husband or family members shall be regarded as abetter of an offence of wife's seeking the aid of pre-natal diagnostic techniques for purposes other than provided by the Maharashtra Regulation of the use of pre-natal Diagnostic Techniques Act, 1988.
- (f) It is evident from social researches that pre-natal diagnostic techniques are likely to be misused for the purposes of foeticide of the female child. As sex-determination and foeticide both are operations to be conducted in woman's privacy, it would be unwelcome to intrude unreasonably upon woman's privacy by legal defere. Indeed, the attending physician, neighbourhood

- public and the woman undergoing operation can possibly help in mitigating or removing the misuse of the MTP and pre-natal diagnostic techniques for condemnable foeticide to a great extent. An educative and awareness drive should, therefore, be launched on mass-media by government to make medical profession, people specifically women, apprised of the medical aftereffects of the procedures like MTP and pre-natal diagnosis, and their other socio-cultural impacts on the society as a whole. Unless the status of woman is tremendously improved and medical profession takes care of the ethics and moral well being of the society, the misuse of MTP and pre-natal diagnosis cannot be regulated only by the arms of law.
- (g) The upper time limit for termination of pregnancy within the MTPA is twenty weeks. Any termination of pregnancy beyond the stipulated time period is illegal within the Act. On the other hand, the results of the most reliable tests like amniocentesis can be obtained only after twenty two weeks of gestation. The MTPA, likewise, must be amended to accommodate the provision for MTP till twenty two weeks of gestation. Otherwise, after sex-determination test the MTP would be performed illegally.
 - (h) Both the MTPA and the Maharashtra Act are hospital laws in as much as their enforcement is related to either hospitals or similar establishments. These enactments entrust the members of medical profession and the specialists belonging to allied disciplines of science to help the needy and qualified women-patients by performing the legally justifiable acts of termination of pregnancy or pre-natal diagnosis. In such a jural background medical practitioners and specialists are duty-bound to locate the genuine cases fitting into the terms and conditions of the law, before they extend their expertise-services. It must be accepted without doubt that the enforcement of the MTPA and the Maharashtra Act will always be subjected to the attitude of medical professionals and specialists. At a time when the existence of commercial trading in the treatment of patients-particularly the termination of pregnancy and pre-natal diagnosis cannot be ignored, the lack of a central legislation on the regulation of the use of pre-natal diagnostic techniques may amount to precipitating the misuse of pre-natal diagnostic techniques due to the inducing effects of sexy-like catchy and misleading advertisements on the services regarding pre-natal

diagnosis, in the states other than Maharashtra where there is no specific law prohibiting advertisement on prenatal diagnosis.¹³ It is no denying that advertisements play a significant role in bringing about popular awareness, but taking into view the rampant misuse of the pre-natal diagnosis of sex for the purposes of female foeticide, the matter of advertisement on pre-natal diagnosis by private diagnostic centres must be sternly dealt with. The following page presents some examples of misleading advertisements inviting women consumers expressly for the purpose of ascertaining the being of a healthy unborn boy or healthy unborn girl within the pregnant woman. While, on the one hand, it is desirable that punitive measures for acts of pre-natal diagnosis of sex of the unborn on the fancy and liberty of the wishes of women must be provided by a central legislation; on the other hand, it is equally essential that *Vigilance Board* consisting of members of women's organisations, medical as well as legal professions, educational institutions and occupations of agriculture, business and others should be organised in every district of the country however separate *Vigilance Board* need be organised in metropol cities/municipal corporations. With a view to disseminating the problem of misuse of pre-natal diagnostic service for sex-determination leading to female foeticide, the powers of the *Vigilance Board* would include paying periodic and surprise visits to the centres, laboratories and clinics with a view to checking compliance with the provisions of the law, investigating into complaints made by members of public or other institutions for contravention of the law; seizing incriminating evidence or record for further administrative or legal action; recommending to the Appropriate Authority the cancellation or otherwise of registration of, or launching prosecution against centre, laboratory or clinic; checking and preventing operation of unauthorised centres, laboratories or clinics; and taking such other action as the Appropriate Authority may direct. It is also important to mention in this context that prior to the registration of a ceration of laboratory or clinic, the recommendation of the *Vigilance Board* of the concerned district/metropolitan city/

13. Section 5 (2) of the Maharashtra Regulation of the Use of Pre-natal Diagnostic Techniques Act, 1988 provides :

No centre, laboratory or clinic shall give advertisement in any manner regarding facilities of pre-natal prediction or sex available at the centre, laboratory or clinic.

municipal corporation must be sought as a prerequisite condition. Such *Vigilance Board* may also be entrusted to contribute in evolving attitudinal responsibility, professional ethics, and a societal code of conduct amongst members of medical profession authorised to perform pre-natal diagnosis and termination of pregnancy. It is also desirable that the proceedings of the meeting of such *Vigilance Board* should not be conducted *in camera* but emphatically at such places and at such time that the general public having been aware of the holding of such meeting is able to participate in the deliberations of the Board. Furthermore, the Board should hold regular meetings at changing venues so that the problems and preventive measures pertaining to the misuse of pre-natal diagnostic techniques for purposes of sex determination leading to female foeticide and other illegal purposes are well popularised amongst common masses of the districts and the subject matter is turned out as one of public-interest and of public moral-utility. At times, the Public Relations Officer of every district may make suitable arrangements so that the important deliberations and achievements of the *Vigilance Board* are loudspoken, publicised and broadcast or telecast by governmental media. This much must be borne in mind that unless a participative management of the regulation of the use of pre-natal diagnostic techniques is not implemented with strong political will and adequate administrative-financial and personnel facilities, it is simply a half-way journey to tackle the problem of the misuse of the pre-natal diagnostic techniques for detecting sex of the foetus leading to female foeticide, which is *prima facie* an act of discriminatory moral delinquency of the born against the unborn-particularly the fair sex.

- (i) It has already been discussed and noted in previous discussion that significant role of medical practitioners and specialists of the disciplines related to Medical Sciences may not be overlooked and underestimated in the context of extending their services for the benevolence of mankind and the society. However, in case of betrayal of the societal faith reposed in medical profession for the purpose of maximum reasonable service in the interests of individual's health communitarian health and national health, it is desirable that care is warranted to foment and augment a legal deterrance for such medical practitioners and others for their acts of selfish commercial motives. Health is

wealth is the old adage to celebrate its vocabulary and utilitarian importance for all times to come and, therefore, it is urgently required that motive of wealth amongst few medical practitioners would not reach to the roots of the health of the country at large. Talking in parlance of the misuse of pre-natal diagnostic techniques for the purposes of sex-determination and the misuse of the MTPA, the following suggestions relating to the specific aspects of the implementation of the above need be pinpointed :

- (1) Every MTP on the ground of foetal indication should be performed by registered medical practitioner only after a certificate to the effect of existence of specifically indicated foetal indication, is granted by *Medical Vigilance Board* organised in every district/metropolitan city or municipal corporation with a recommendation of the MTP in the concerned case.
- (2) *The Medical Vigilance Board* should also have its own diagnostic facilities to detect anomalies regarding pre-natal life and the carrying woman, and prenatal diagnostic services should be extended free of cost to all married women where it is judged upon in a preliminary medical check up that pre-natal diagnosis is necessarily require. The number of *Medical Vigilance Board* may be increased depending on the number of married women of the concerned district, municipal corporation or metropolitan city. Furthermore, the Medical Vigilance Board should have the active and efficiency-oriented collaboration of Governmental hospitals where MTP on foetal indication could be performed as a medically and socially warranted treatment.
- (3) It deserves mention that for an illegal act relating to the misuse of the law regarding regulation of pre-natal diagnostic techniques, as well as of the MTPA, medical professionals or other alike should be made liable by the law, and for repeated offences the penalty must be severe one. However, care must be taken to safeguard woman's privacy and accordingly any proceeding regarding the above stated offences must be conducted in camera by a Family Court established for the purpose. Such Family Court need be constituted of members of medical and legal professions, social workers and members of women organisations.

Amongst developed and developing nations there is an endless competition to acquire scientific and technological knowledge which may be used for the welfare or destruction of the living world—man not being an exception. In this context a question generally arises : what are the researcher's professional goals of acquisition of knowledge, or due to a concern for the welfare of humanity ? Replying to this, the researcher may assert his academic intentions of utmost purity and nobility to a human society, which makes stringent limitations on researches unresolvable. But in wake of scientific and technological researches problems are bound to come up when researches are applied by mankind for selfish ends cutting at the very root of the preservation of human race. Examples of such uses are not unknown, e.g.; Wars, Bhopal Gas Disaster, Thalidomide episode of England, to name a few, which were caused by intentional, accidental or negligent mismanagement of scientific and technological knowledge to bring about dire consequences forcing masses in each case suffering a lot who voiced their bewailings in public forum mass media and judicial platforms for possible settlement of their grievances. Moreover, there are cases not unknown of voiceless victims—masses of foetuses aborted after sex determination; how far a law will solve the behavioural and cultural impasse makes an important question calling attention of lawyers, scientists, medical professionals and the state authorities. An enactment like the MTPA or the Maharashtra Act may serve as a model legislation, and the suggestions already pointed out when incorporated into the model legislation may help in locating a legal exercise in right direction. Above all, it deserves attention of all that in modern times man is standing on such a plank of human civilisation that he is forced to receive and utilise knowledge of science and technology consciously, subconsciously or unconsciously, and thereby bringing home the station of life a metamorphosis of symbols, ideals and morals that have yet not impinged on human life. It is matter of paramount importance that a universalistic outlook is maintained in the matters of, and about interaction between, law and service or technology and unless law, science and technology is wedded with a moral philosophy of human well-being, law would fail in engineering the society with desirable goals and contribution.

LEGAL ASPECTS OF AIDS CONTROL : THE LEGISLATIVE REQUIREMENTS IN INDIA

CHHATRAPATI SINGH*

Introduction

The alarming rate at which AIDS is becoming a major medical and social problem demands that immediate attention be given to the regulatory framework with which we hope to cope with this phenomenon, specially since no cure is as yet known for this disease. The alarm has motivated some people to even rush to Parliament to demand new AIDS control law, such as the AIDS Prevention Bill of 1989, which has been pending in Parliament since the last year. The urgency of the matter, notwithstanding, the situation certainly does not call for unmediated and impractical laws which may end up violating more of the people's rights than help them cope with the problems of the disease. Under the pending Bill provisions as wild as banning sex with all foreigners to testing all prostitutes have been contemplated.

If we are to come up with a rational legal strategy for controlling the spread of the disease and helping those suffering from it, a systematic understanding of the legal problem is necessary; the capacity of the agencies that will administer the law needs to be estimated; and finally the social conditions of the high risk group needs to be better understood to determine the manner and extent to which the law can be implemented.

The aim of this paper is to systematically present and discuss the legal framework that is presently involved in AIDS control, as well as the one that would be involved when an appropriate law is framed. The paper also outlines the areas of legal concern which require deeper considerations, in terms of jurisprudential and empirical research, to make possible evolution of better legal strategies.

Presentation :

The presentation is divided into five parts. The first introduces the nature of AIDS problem as the knowledge of the facts is a prerequisite to reflections on the nature of law required. The second Part highlights these facts as they relate to India. The third Part presents details of the legislative activities in other countries. This comparative perusal helps

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one to identify the critical issues involved in AIDS, as well as the alternative legal strategies. The fourth Part describes the legal framework that is (and would be) involved in AIDS regulation in India. The fifth Part is a critical discussion of the legal issues mentioned in the fourth Part.

PART-I

The Global Picture

Based on information reported from countries who estimates that, by early 1990, there were about eight million adults infected with HIV worldwide resulting in 700,000 AIDS cases.

During 1990 it has been estimated that there will be an additional 1.5 million HIV infections and over 200,000 additional AIDS cases.

So far 60% of all HIV infections have occurred in SUB-Saharan Africa, about 30% in North and South America and Australia, about 6% in Europe and the 4% remainder in Asia.

Distribution of HIV infection all over the world is as under

Sub-Saharan Africa	60%
Nort and South America and Australia	30%
Europe	6%
Asia	4%

Who conducted a DELPHI Study to try to estimate the numbers of HIV infections and cases of AIDS that would occur by the year 2000. The experts surveyed predicted that by the year 2000 there would be a cumulative total of 15-20 million HIV infections and a cumulative total of 5-6 million adults with AIDs.

In Asia the DELPHI Study had projected that there would be 1 to 1.5 million infections by the year 2000, yet we estimate one half million have already occurred.

By the year 2000, it is expected that at least 80% of all HIV infections will result through heterosexual transmission. This further points out the close relationship between a programme that seeks to control HIV and AIDS and a programme which seeks to control other STDs.

Only three modes of HIV transmission documented

Sexual intercourse (vaginal or anal).

Injection or transfusion of HIV infected blood; by infected blood products, semen/tissues/organs.

From an infected mother to her infant (Perinatal Transmission).

Transmission of HIV after exposure to an infected source

Exposure	Transmission Rate
Blood Transfusion	Very high transmission rate, 90% or higher documented
Mother-to-infant	Reported Transmission rates average 25 to 50%; higher in advanced stage of maternal infection

Sexual Contact 1 in 100 to 1 in 1000.

HIV/AIDS—Global Pattern I

HIV likely began to spread extensively in the late 1970s.

Predominately homosexual men and IV drug users affected.

Transmission via blood transfusions controlled since 1985.

Perinatal transmission uncommon, but increasing as heterosexual transmission increases.

This pattern is presently found in North America, Western Europe Australia, New Zealand and parts of Latin American.

HIV/AIDS—Global Pattern II

HIV likely began to spread extensively in the mid-to-late-1970s.

Heterosexual transmission is the major mode of spread.

HIV screening of blood becoming available.

Use of unsterile injection equipment a problem.

Perinatal transmission is a major problem.

This pattern presently found in sub-Saharan Africa, increasingly in Latin America and the Caribbean.

HIV/AIDS—Global Pattern III

HIV was likely introduced in the early to mid 1980s.

Homosexual, heterosexual and IV drug transmission have been documented. Early cases have generally been associated with persons from pattern I and II areas.

Initial transmission was mainly via imported blood products.

This pattern is presently found in Eastern Europe, the Middle East and most countries of Asia and the Pacific regions.

Global strategy on prevention and control of aids

Experience insufficient to determine the most suitable strategy.

Various strategies depending on the needs and suitability of individual country are ;

Prevention of sexual transmission

Prevention of transmission through blood

Blood products

Injections and skinpiercing instruments

Organ and semen donation

Prevention of perinatal transmission.

Prevention of transmission from HIV-infected persons through the use of therapeutic agents.

Prevention of HIV transmission through vaccination.

Reduction of impact of HIV infection on individuals groups, and societies.

PART-II

The Indian Situation

Situation of AIDS and HIV infection in sear countries
(As of 30 September 1990)

Country	No. of persons examined	No. of positives for HIV	No. of cases	Month last reported
Bangladesh	42266	1	0	(5/90)
Bhutan	2955	0	0	(8/90)
DPR Korea	61200	23*	0	(7/90)
India	530338	3383	48	(8/90)
Indonesia	97132	25	9	(8/90)
Maldives	3848	0	0	(8/90)
Mongolia	60103	0	0	(8/90)
Myanmar	44419	791	0	(7/90)
Nepal	18280	7	4	(8/90)
Sri Lanka	155265	27	6	(8/90)
Thailand	2296434	22075	53	(9/90)
			120	

* All foreigners and seat out of DPR Korea.

Problem of HIV Infection in India

Female Prostitutes 1987 HIV infection
Now

< 1%
20-70%

As far as SouthEast Asia region is concerned, HIV transmission among intravenous drug injectors became prominent in Thailand, Myanmar, and India.

Rapid increases in Seroprevalence rates has more recently been seen in some groups of female prostitutes, notably in Thailand and India.

In Thailand, in 1987, less than 1% of a group of IV drug users seen in treatment facilities in Bangkok were infected. By 1990, about 50% were infected.

Similarly, while less than 1% of female prostitutes surveyed in various cities were infected in 1987, by 1989 there were at least three provinces with HIV infection rates of 25% with a prevalence of over 70% in some small groups in some locations in Thailand.

In India in 1987, less than one percent of female prostitutes surveyed were infected. Now, 20-70% of small groups of prostitutes are infected in some cities.

It is of particular to note that the rate of increase of HIV infections in female prostitutes in some cities in Thailand and India between 1987 and 1990 is similar to that seen in the earlier stages of HIV epidemic in Sub-Saharan Africa. In Sub-Saharan Africa in 1987 10-15% of pregnant women were infected which in 1990 went up to 20-30%. Similarly the number of total infections in the population had doubled over three-year period from 2.5 to 5 million in Sub-Saharan Africa.

PART-III**The Comparative Legal Situation****PART-IV****The Indian Legal Framework****1. Statutory Provisions**

There is no comprehensive law regulating AIDS related problems in India as yet. A Bill, named the AIDS Prevention Bill, was submitted to Parliament for legislation in 1989. The Bill came under severe criticism, consequently it was not passed. It has now lapsed.

Amongst other provisions, the Bill provided for mandatory testing of high risk groups (prostitutes). Section 5 of this Bill made it possible for the authorities to carry such tests even without the affected persons consent.

At the state level, the only law which deals with the AIDS issue directly is the Goa Public Health Act, 1987, which was amended in 1989, to give powers to the health authority to take AIDS suspected people into direct custody.

Under the authority of this amended Act, the Goa Health authorities picked up Dominic D. Souza, Benedict Alfonso, Ashok Kambili and Rosheeda Begum, in 1989, and forced them to stay in a T. B. Sanatorium. In June 1989 the first three filed a petition challenging the Goa Public Health Law. The Goa Bench of the Bombay High Court did not order their release. Subsequently, the Act has been amended to make detention discretionary and not mandatory.

The Drugs Control Act, 1950, it must be noted, concerns itself mainly with the offences and penalties for misuse and sales of drugs. It does not regulate the use of hypodermic needles, etc., which may be used in drug addiction.

The most widely used (or misused) law in regulation of AIDs, so far, has been the Immoral Traffic (Prevention) Act, 1956. Section 8 (a) of this Act gives the police overriding powers to pick up prostitutes who may be soliciting or practicing their trade in public places. Section 20 of the same Act gives the Magistrate powers to remove and take into custody prostitutes from any place. These powers were used by the Maharashtra police, in 1990, to round up about 900 prostitutes from various places in Maharashtra (mainly Bombay) and forcefully tested them for HIV in Madras. Those found positive were sent to the rehabilitation homes against their wishes. The Immoral Traffic Act, it must be noted, does not provide for mandatory testing for HIV or forced detention for this purpose.

The Goa Health Law, or the AIDs Prevention Bill, if made into a law will attract a number of provisions of the Indian Constitution, specially those relating to people's Fundamental Rights and those concerning the duties of the state under the Directive Principles. Any law concerning AIDs must necessarily take into account these constitutional mandates, that is, it must not violate any of these basic rights or state's duties.

2. Constitutional Provisions :

The relevant Constitutional Provisions are as follows :

Fundamental Rights : Article 14—equality before the law. There should be no discrimination amongst persons in terms of testing, custody, surveillance or other legal requirements.

Article 16—equality of opportunity in public employment. There should be no discrimination in terms of job opportunities just because some one is HIV positive or afflicted with AIDs.

Article 19 (a)—freedom of speech and expression. Persons who are forcefully tested for HIV or AIDs cannot be stopped from informing others, or seeking medical or legal advice from other sources.

Article 19 (g)—right to freedom of profession, occupation and trade or business. Testing for HIV or AIDs must in no way jeopardize a person's profession. Nor must a person's profession, occupation or trade be discriminated against because he or she is declared to be HIV positive or afflicted with AIDs.

Article 21—the right to life and livelihood. If the testing for HIV or AIDs or declaration that a person is so afflicted, jeopardizes a person's livelihood then this constitutional provision has been violated.

Directive Principles : Article 38—the duty of the state to promote the welfare of the people. The AIDs law must not achieve the opposite result.

Article 39 (a)—right to adequate means to livelihood. The people's livelihood must not be spoilt as a consequence of the AIDs law.

Article 39 (A)—right to free legal aid. The law must make provisions for this, specially for the economically and socially underprivileged people.

Article 41—the state's duty to protect people's right to work. The AIDs law must ensure that the stigma of being designated as HIV positive or AIDs afflicted does not infringe upon people's right to work.

Article 47—duty of the state to improve public health. The AIDs law must be necessarily improvement oriented and not merely punishment (detention) or discrimination (segregation) oriented.

3. Human Rights—Besides these basic rights of the people which are guaranteed by the Indian Constitution, there are a number of other basic (Human) rights which are involved in the AIDS issue. We shall

take note of these in the next chapter. However, in so far as India is bound by them. Some of the most significant provisions to which the Indian law and legal practice is intrinsically bound, are as follows: Universal Declaration of Human Rights. [specially articles: 3,5,7,9,12, 13,16,19,22,23,25,26,29], the International Covenant on Civil and Political Rights, the Convention on the Rights of the Children, the Convention on Elimination of Discrimination against Women and the International Convention on Economic, Social and Cultural Rights.

In so far as there may be discrimination against any one in employment or work, on the grounds of his or her testing HIV positive or afflicted with AIDs, the following international labour laws, to which India is bound, also become relevant :

International Labour Organisation Convention No: 111 restricts discrimination in employment or occupation, I.L.O. Convention No: 158 specifically restrict discrimination against termination of employment on the ground of AIDs, I.L.O. Convention No: 161 guarantees the right to occupational health services, I L.O. Convention No: 159 provides for rehabilitation and employment of disabled persons due to AIDs, and I.L.O. Convention No: 169 confers the equality of opportunity for employment.

PART-V

The Legislative Requirements

1. Infringement of Rights

The first legal requirement of an AIDs law is to maintain balance between the public interest, in terms of a medically healthy environment and simultaneously the protection of individual's rights. It is an undeniable fact that people would like to live in a society in which the risk of getting infection from the affected people is minimised, but at the same time few people would tolerate a society in which people's basic rights (specially if its their own) are violated. Some of the basic rights which must be taken in to account are as follows:

Right to Privacy—People would not want their private situation to be publicised. The Indian Constitution or statutes do not provide any right to privacy. Many AID laws enacted in Europe have now prohibited giving of information about AIDs patients, unless it is medically necessary.

Right to work—The social stigma and fear attached with AIDs has compelled many employers to terminate the jobs of AIDs afflicted per-

sons, on one pretext or other. In the Indian context the right to work is not constitutionally or legally protected.

Right to receive Medical Aid and Facilities—Many AIDs patients have been denied proper medical care once it is discovered that they have AIDs. The case of the AIDs patient in the All India Medical Institute, in 1990, who was even denied a proper post-mortem and burrial because of the disease, is to be noted here. His body was simply shifted to another hospital without information. The situation here is similar to that concerning leprosy and T.B, where people have been segregated without any legal sanction.

Right to Movement—55 countries, so far, have changed their laws and policies concerning immigration, where in they do not permit entry to those people who test HIV positive. In India too foreign students are required to undergo HIV test, and their grant of visa depends upon these tests.

Right to Domicile—Some countries, such as Vietnam and Cuba, do not allow their own citizens to return to the country if they are HIV positive.

Right to Reside—Most European countries now do not recognise the rights of refugees to immigrate if they are HIV positive or afflicted with AIDs.

Having noted the various types of rights that need to be protected one must now turn to see the categories of people whose rights are involved, to define the scope of law.

CATEGORIES OFTEN SUBJECTED TO COMPULSORY HIV

TESTING

suspected AIDS cases

homosexuals

bisexuals

prostitutes

drug users

persons in drug-dependence treatment

entering aliens

resident aliens

foreign students

returning nationals

seamen

persons attending STD clinics

hospital patients

prisoners

persons accused of sexual offences

military recruits

military personnel

partners of HIV-infected persons

children of HIV infected persons

pregnant women

applicants for marriage licenses

blood donors

organ, tissue, cell, breast-milk, sperm donors

haemophiliacs

recipients of blood transfusion

applicants for posts in the civil service

civil servants

prospective employees

employees

airline pilots

health care workers

food handlers

policemen

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MEDICO-LEGAL ASPECT OF CONSENT IN THE DOCTOR-PATIENT RELATIONSHIP

RAM JEE*

I. Introduction :

Advancement of science and technology and thereby expansion of medical progress at an ever accelerating rate has made remarkable contributions in the field of health care by successfully eradicating certain diseases of epidemic nature and curing certain others which are fatal to human beings. In its endeavour to, if not eliminating human sufferings completely, at least minimising it to a satisfactory level, the medical researches have helped in the production of life saving drugs and evolution of new techniques of treatment by surgical operations including organ transplantation. However, the continuous progress of medical science, resulting in the new developments into medical practice, sometimes, presents a number of special problems for the law which stands for guiding and regulating medical science and medical progress so as to make it more responsive to the society's needs and values. The challenges thrown before the law by advancements in medical science are : artificial insemination, termination of pregnancy, sex determination, surrogate parenthood, organ transplantation, cloning and many others. These progress raise not only moral but legal issues. Artificial insemination and surrogate parenthood, for example, throw a great challenge to moral values, personal laws-both ancient and modern, the fields of legitimacy of child, succession and inheritance, maintenance, rape and adultery, etc. Termination of pregnancy may invoke penal provisions relating to cruelty towards unwilling mothers, the child in the wombs and the provision relating to homicide, etc. Sex determination cases may lead to the revival of age-old custom of female infanticide and also endanger the sex balances creating new societal problems. Medical progress made in the field of organ transplantation, now being termed as 'spare-parts surgery' and which is comparatively of latest origin, has compelled the countries in which these pioneer operations are being carried out to debate on legal, ethical, moral and social issues. Elaborating, for example, the moral and ethical problems and challenges in the field of organ transplantation Dr. J. G. Castel of Osgoode Hall Law School, New York University observed :

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Human transplants bring many moral and ethical problems to mind. For instance, is it right for the hope of the patients for survival to be based on the expectation of the death of others ? Is it ethical for a surgical team to await the death of one patient to save another ? Is it right to remove an organ from a healthy live donor when the recipient's prolongation of life after treatment is limited to one, two or three years. Will the transplant do any good ? More generally, is the right to experiment a fundamental freedom for the physician ? What are its limitations ? How should the recipients be selected when there is a shortage of donors and equipments ? On what basis should such a choice be made ? For instance, should an infant of tender years or an unskilled individual's life be prolonged ? Who is qualified and has the right to adjudicate the value of someone else's years ? To what extent is a surgeon in a position to choose between the risk incurred by the donor of the transplant and the value of the life of the recipient ?¹

The problems of "spare-part surgery" are not confined only to ethics and morality but it has also disturbed the existing legal framework. Determination of death, concept of sale in view of commercialization of human organs whether live or cadaver, donation of organs vis-a-vis laws relating to sale of goods, gift tax, income tax, possession and control of the body of the deceased, etc. are some of the legal problems which need justifiable solutions.

Although various fields of medical progress have the problems which, to a large extent, are confined to these respective fields, the problem of consent or 'informed consent' to medical treatment is one which invariably applies to every innovations of medical science. Doctor-patient relationship is contractual and arises out of agreement-express or implied and consent being vital for the formation of contract, it must be obtained by the doctor when a patient submits himself for treatment. Since consent plays a vital role in doctor-patient relationship, it must be a "real", "full" and free consent. This pre-requisite of consent in medical treatment gives rise to various questions, for example, (1) when is the consent "real", "full" and "free" ? (2) Who is capable of giving consent ? (3) Can there be any situation wherein the requirement of consent to medical treatment be ignored and if so, what are the justifications for that ? (4) Whether failure of the 'doctor' to obtain patient's consent and failure of the doctor to disclose risks involved in the treatment may be considered as negligence and thereby can it come within the

1. J. G. Castel, Some Legal Aspects of Human Organ Transplantation in Canada, (1968) 46 Can Bar Rev. 345 at p. 347.

purview of breach of doctor's duty to take care? (5) Is a performance of surgical operation by the doctor without obtaining the consent of the patient amount to battery and trespass to patient absolving the patient from his burden of proving the causation? (6) What are the justifications for the doctrine of informed consent? (7) What role should the law play in helping to give the benefits of innovations made in the field of medical science to the human welfare etc.?

As stated earlier, since the challenges thrown by the medical progress are multidimensional, it is, if not impossible, at least very difficult to deal with the legal aspects involved in each and every field of advancements in medical science. We will, therefore, confine ourselves to the role of the doctrine of informed consent in doctor-patient relationship.

II. Consent Inadvised Consent—Meaning, nature and scope :

Doctrine of "Consensus ad idem" forms the basis of consent and accordingly "Two or more persons are said to consent when they agree upon the same thing in the same sense."² If section 13 of the Indian Contract Act, 1872 "...is to cover all kinds of contract, as presumably it does, the word 'thing' must obviously be taken as widely as possible, though it seems more appropriate where the contract has to do with corporeal property. We must understand by 'the same thing' the whole content of the agreement, whether it consists wholly or in part, of delivery of material objects, or payment or other executed acts or promises."³ The phrase "something in the same sense" which originated from New York Civil Code has been well-explained by Lord Hannen as follow:

It is essential to the creation of a contract that both parties should agree to the same thing in the same sense. Thus if two persons enter into an apparent contract concerning a particular person or ship and it turns out that each of them, misled by a similarity of name, had a different person or ship in his mind, no contract would exist between them : *Raffles Wichelhaus*.⁴

The phrase "same thing in the same sense" may also be extended to be applied to the fact situations in the doctor-patient relationship as well. A patient while submitting himself for treatment might have a quite different doctor in his mind than the doctor who actually treated him (mistake as to the identity of parties), or the patient might

2. Indian Contract Act, 1872, see Sec. 13.

3. Pollock and Mulla, *Indian Contract Act and Specific Relief Acts* (10th Edn.) pp. 134-35.

4. *Ibid.* at 135.

have 'consented' for a particular surgery than actually performed by the doctor (mistake as to the identity of subject matter), or he might have thought of a particular medical procedure to be adopted for treatment than the procedure in fact adopted by the doctor. In all such cases the consent given by the patient in either of the circumstances enumerated above cannot be regarded as consent within the meaning of law and where the doctor proceeds with the treatment on the basis of such a consent, it can very well be said that he proceeded without 'real' and 'true' consent and the action based on trespass and battery will lie against him. It is so because 'meeting of minds of the parties or 'consensus ad idem' is the very basis of valid contract.⁵ However, without going into the niceties of the interpretation of the phrase 'same thing in the same sense', consent in doctor-patient relationship may mean a real willingness of the patient or any other person authorised by him in this behalf to agree for the medical treatment, of course, keeping in view the identity of the doctor and the kind and procedure of treatment.

Although 'true' and 'real' consent, the stepping stone, provided a sound base for the proceeding in the direction of the formation of contract but the matter does not end here. There are certain vitiating factors⁶ too which make the said 'true' and 'real' consent ineffective and inoperative because, for the formation of a valid contract consent given must be a free. A consent is said to be free if it has not been caused by coercion, undue influence, fraud, misrepresentation and mistake.⁷

The relationship of the doctor and the patient also may attract the factors which vitiate the contract. A doctor may be said to have obtained the consent of the patient or any person authorised by him to give consent on his behalf by undue influence where a doctor who is certainly in a position to dominate the will of the other party uses his dominant position to gain unfair advantage over the patient. This may happen where the doctor demands an unreasonably higher amount from the patient who not being in a position to bargain with the doctor consents to pay; or where, for example, the patient or his well wisher agree to part with his organ i. e. kidney or eye etc. in return to the treatment

5. An eminent English writer Anson in his book entitled, *Law of Contract* (24th Edn.), also holds the same view when he says, "During the nineteenth century, in reliance on the consensus theory of Contract, it was required of the parties that their consent should be 'true full and free'...(and) where there was no genuine and real consent, there was no valid contract; *Id* at 271.

6. The factors which vitiate the consent are coercion, undue influence, fraud, misrepresentation and mistake; See Indian Contract Act, 1872 Sec. 14.

7. *Ibid.*

to be given to the patient by the doctor. This is the obvious example of the misuse by the doctor of his fiduciary relationship with the patient or his well wisher. The consent so given not being free within the meaning of section 14 of the Indian Contract Act, is no consent at all and therefore, the doctor who operated upon the patient or his well wisher to remove his kidney or eye is guilty of trespass and battery. 'It is firmly established in English law that in the absence of exceptional situations, such as an emergency situation, a doctor must obtain the consent of his patient before undertaking treatment involving physical contact with the patient. If he fails to do this he will be liable in damages for the tort of trespass. The application of this principle can be seen from several cases, for example, *Cull v. Butler* (1932) 1 B M J 1195 (Surgeon obtaining consent to curettage but performing hysterectomy) and *Hamilton v. Birmingham R.H.B.* (1969) 2 B.M.J. 456 (Sterelisation operation performed without the consent of the patient).'⁸

To take up the case of consent obtained by fraud, it may happen that a patient's consent given to the doctor may be said to have been caused by fraud where the facts likely to affect the willingness of the patient to give his consent are not disclosed by the doctor. Generally speaking, "mere silence as to facts likely to affect the willingness of a person to enter into a contract is not fraud", however it may so amount if "the circumstances of the case are such that, regard being had to them, it is the duty of the person keeping silence to speak or...his silence is, in itself, equivalent to speech."⁹ "Persons in fiduciary positions also owe a duty to those who repose confidence in them to act with utmost good faith and to make a full disclosure of all material facts known to them which might be considered likely to effect the transaction between them."¹⁰ A doctor undoubtedly stands in a fiduciary relationship with his patient, and therefore, owes a duty to his patient to disclose all material facts which are likely to affect his willingness to give his consent. Now the question may arise as to what facts in a doctor-patient relationship may be considered to be material which are likely affect the willingness of the patient to give consent? Man by nature is calculative not only in fiscal sense out also in physical sense. He, by nature, is bound to opt between life and death, between health and disability, between joy and sufferings. It is because of this human nature that when a patient submits himself before the doctor for treatment, he wants to know before

8 Gerald Roberston, *Informed Consent to Medical Treatment*, (1981) 97 *L.Q.R.* 102 at pp. 112-113.

9. Indian Contract Act, 1872, Sec. 18 (2), para II.

10. Anson, *Law of Contract* (Twenty Fourth Edu.) p. 253.

hand about the risks involved in that treatment. He then makes comparative evaluation between the risks involved and the reliefs he will be getting by this treatment and decides on his own what is beneficial to him. So the risks involved in treatment will be regarded as a material fact which is likely to affect the patient's willingness or unwillingness to accept or refuse that treatment. Where, therefore, the doctor fails to disclose the risks involved the patient, having no material before him to judge whether to give consent or not, the consent given by him under such circumstances is no consent at all.

The patient's choice whether to receive medical treatment or not may also be affected and vitiated where the doctor is guilty of '*suggestio falsi*' or '*suppressio veri*', or where the patient, because of the conduct of the doctor, has been induced to commit mistake as to his choice whether to go far treatment or not. The factors vitiating the patient's consent may operate in numerous ways and it is not possible to prepare the exhaustive list of these circumstances. We need not bother to enumerate all of them as its categories are never ending. Our only concern is and should be to look into its effect upon patient's consent.¹¹

III. Doctrine of Informed Consent Retrospect and Prospect :

"...human life is too important to leave to the physician." The public has marvelled at what the medical profession has wrought with organ transplants and the possibilities of biological reproduction. However, the physician cannot be permitted to play God, acting according to his whim in determining who may live and who may die...law and lawyers must play significant role in developing techniques to protect human dignity and to assure that medical science is indeed utilized for the benefit of human well-being and not as an end in itself to satisfy the physician's simple curiosity or desire for notoriety.¹² It was the need to counteract these unwarranted

11. Illustrating some of the situations of undue influence and fraud Mr Earl F Rose in his article entitled *Medico-legal problems Associated with Organ And Tissue Transplantation*, contributed in a book entitled *Legal Medicine* (1982 Edn.) edited by Cyril H. Wecht says, "Undue influence, fraud and deception are latest medico-legal problems in the more complex types of transplantation. Problem could conceivably arise because of 'unsatisfactory communication in the procedures for obtaining informed consent or because of different vocabularies of health and illness. Omissions, evasions and perhaps clever and deliberate obfuscations by an over-enthusiastic transplant team could constitute fraud and deception.'" *Id* at 86.

12. Luis Kunter, *Due Process of Transplants : A Proposal* (1969-70) 24 *Uni. Miami Law Rev.*, 782.

and unfounded beliefs of medical practitioners that the doctrine of informed consent was evolved. The doctrine finds its roots in the recognition of the patient's right of self-determination and personal autonomy.¹³ To quote Mr. Justice Benjamine Cordozo, every human being of adult years and sound mind has right to determine what shall be done with his own body and a surgeon who performs an operation without his patient's consent commits an assault for which he is liable in damages. This is true except in cases of emergency where the patient is unconscious and where it is necessary to operate before consent can be obtained.¹⁴ The analysis of the observation of Mr. Justice Benjamine Cordozo shows : (1) that the patient has right to decide with his sweetwill what is to be done to his body; (2) that before a doctor proceeds, to treat the patient he is obliged to obtain the consent of the patient, (3) that the patient must have the capacity to give his consent; (4) that if the doctor treats the patient without first obtaining his consent he subjects himself to the liability based on assault, and (5) that the pre-requisite of patient's consent for treatment may be dispensed with in cases of emergency, for example, where the patient is unconscious or any other circumstances which show the necessity of providing treatment without prior consent of the patient. Although Mr. Justice Cordozo did not, in clear terms, talk of informed consent as such, it may be implied in his observation because the term consent means 'real', 'full' and 'free' consent which includes informed consent even. The consent which one gives reflects his opinion or judgment in respect of the options before him and opinion cannot be formed or one cannot judge between two options without having sufficient materials and informations before him. An opinion cannot be formed or decisions cannot be taken in vacuum. In case of genetic counselling, for example, any woman who employs a physician for pre-natal case should

13. The emphasis upon patient's personal autonomy as the basis of informed consent has been made by Prof. Sen Kennedy, a Professor of Medical Law and Ethics who says, "Consent is one aspect of respect for autonomy. In the context of medical ethics, it means that a doctor may not touch or treat another without his consent, always assuming that other is competent to make an autonomous decision." See Tan Kennedy, *The Patient on the Clapham Omnibus* (Notes on cases) (1984) 47 *Mod. L. Rev.*, 454, 456
14. *Schloendorff Society of New York Hospital* (1914) 211 N.Y. 125, quoted in Wayne M. Ozzi, *Survey of the Law of Informed Consent in Physician-Patient Relationships*, *Legal Medicine*, 1982, edited by Cyril H. Wecht, 1982, 177,

have the right to have the physician fully inform her of any reason he has to believe that the fetus might be defective and to further inform her of the existence of diagnostic tests that might identify precise genetic defects. The physician incurs this duty of disclosure because it is precisely this kind of information that the woman employed the physician to learn in the first place i.e. to learn all she could to help her have a healthy child. If the physician fails to disclose this information her consent to that treatment may be invalid. The physician does not guarantee a healthy child but the reasonable expectation of the patient is that she will be apprised of any information the physician has that the child might be defective and of the alternative ways to proceed, so that she can determine what to do.¹⁵

The latter developments in this direction show that the consent given by the patient for medical treatment without having been first informed, warned or advised by the doctor about procedure to be adopted in the proposed treatment, the possibility of alternative treatment and the risks involved in that procedure or treatment is no consent at all. Positively speaking "the need for a patient to be apprised of certain information about the procedure before an apparent consent can be effective has been called the doctrine of informed consent."¹⁶ Simply put the doctrine of informed consent means that a doctor is required to give his patient sufficient information about proposed treatment to provide with him the opportunity of making an "informed" or rational choice as to whether to undergo the treatment."¹⁷ The doctrine, therefore, serves two purposes. Positively it confers upon the patient a right to receive certain informations making it obligatory for the doctor to give the required information; and negatively it refrains the doctor to proceed with the treatment without having first obtained 'full' and 'informed consent' of the patient. The positive consequence of the negative aspect of the doctrine of informed consent is that the doctor subjects himself to liability towards the patient for trespass and battery. This is simply a rough sketch of the doctrine but to understand and appreciate it in its right perspective, there will be the need to add flesh to this skeleton and it will be possible only by thoroughly probing into its various aspects for

15. George J. Annas, *Problem's of Informed Consent and Confidentiality in Genetic Counselling*, in *Genetics and the Law* 1975 edited by A. Milansky and George J. Annas, 1975, 116-117.
16. Stephen F. Smith, *Some Recent Cases on Informed Consent* (Comments) (1983-85) 9 *Adelaide Law Rev.*, 413 at 413.
17. *Supra* note 8 at p. 102.

example, scope of the patients, right to information vis-a-vis doctor's duty to disclose, scope of disclosures, situations where the duty of disclosure of risks may be dispensed with and the justifications for non-disclosure and basis of doctor's liability for non-disclosure etc.

A. Justification for patient's right to information vis-a-vis doctor's duty of disclosure :

Although legislature has not, in clear terms, come forward to impose a legal duty upon the doctor to give sufficient information to patient about the proposed treatment or to warn him about the risks inherent in that treatment, the judiciary seems to have made some fruitful attempts in this direction. For example, the judicial intent in this direction may be gathered from the observation of the Supreme Court of Kansas when it observed that the doctor is under an obligation to make "reasonable disclosure...of the nature and probable consequences of the suggested or recommended...treatment and...a reasonable disclosures of the dangers within his knowledge which are into ident to, or possible in, the treatment which he proposes to administer."¹⁸ Judicial intent, therefore, appears to be in favour of imposing such a duty not only in respect of the nature of proposed treatment but also the dangers and risks inherent in that treatment. The judicial recognition of the doctor's duty to warn his patient about the risks involved in the proposed treatment is apparent from the principle enunciated by California Court of Appeal in *Salgo v. Lennard Stanford Jr. University Board of Trustees* which is probably regarded to have fathered the doctrine of informed consent where the court opined that "physician violates his duty to his patient and subjects himself to liability if he withholds any facts which are necessary to form the" basis of intelligent consent by the patient and then proposed treatment.¹⁹

The question of disclosure of risks in the proposed treatment has been made complex by mixing two issues together i.e. firstly, a plain and simple question as to whether a doctor owes a duty toward his patient to disclose and warn him about the risks involved in the proposed treatment; and secondly, what should be the degree, nature and extent of the disclosure of risk? Most probably these do not appear to be much controversial on this issue and if at all it is there, as already stated, it is because of combining both the issues together. A very significant case of *Sidway v. Board of Governors of Bethlem Royal Hospital and the*

18. Quoted in Gerald Roberston, *Informed Consent to Medical Treatment* (1981) 97 L.Q.R. 192 at p. 103.

19. *Id* at 104.

*Mudsley Hospital and others*²⁰ wherein these issues were involved. Although the court decided in favour of the defendant respondents yet as to the question whether the doctor owes a duty to warn the patient about the risks involved in the proposed treatment the consensus is affirmative. It is worth while to mention here the observations of Lord Bridge of Harwick, of course with some reservations, recognised patient's right to information where he said :

I am of the opinion that the judge might in certain circumstances come to the conclusion that disclosure of a particular risk was so obviously necessary to an informed choice on the part of the patient that no reasonably prudent medical man would fail to make it. The kind of case I have in mind would be an operation involving a substantial risk of grave adverse consequences, as, for example, the ten per cent risk of a stroke from the operation which was the subject of the Canadian case of *Reibl v. Hughes*, 114 D. L. R. (3rd) 1. In such a case, in the absence of some cogent clinical reason why the patient should not be informed, a doctor, recognising and respecting his patient's right of decision, could hardly fail to appreciate the necessity for an appropriate warning.²¹

Lord Templeman, not far behind in giving due recognition to patient's right to know about the risks of proposed treatment says, "there is no doubt that the doctor ought to draw the attention of a patient to a danger which may be special in kind or magnitude or special to the patient,"²² Lord Scarman, delivering dissenting judgment in this case, strongly felt in favour of fixing upon the doctors a duty to warn the patient about the risks involved in the proposed treatment and said :

It would be a strange conclusion if the courts should be led to conclude that our law, which undoubtedly recognises a right in the patient to decide whether he will accept or reject the treatment proposed, should permit the doctor to determine whether and in what circumstances a duty arises requiring the doctor to warn his patient of the risks inherent in the treatment; which he proposes ...The existence of patient's right to make his own decision, which may be seen as a basic human right protected by the common law, is the reason why a doctrine embodying a right of the patient to be informed of the risks of surgical treatment

20. (1985) 2 W.L.R. 480 (H.L.).

21. *Id*, at 505.

22. *Id.*, at 507.

has been developed in some jurisdictions in the U. S. A. and has found favour with the Supreme Court of Canada...*The (medical) profession, it is said, should not be judge in its own cause or less emotively but more correctly, the courts should not allow medical opinion as to what is best for the patient to override the patient's right to decide for himself whether he will submit to the treatment offered him.*²³

In his concluding remarks on the issue of doctor's duty to warn the patient Lord Scarman, after analysing many American and English decisions, said :

*...I think that English law must recognise a duty of the doctor to warn his patient of risk inherent in the treatment which he is proposing and specially so if the treatment be surgery. The critical limitation is that the duty is confined to material risk. The test of materiality is whether in the circumstances of the particular case the court is satisfied that a reasonable person in the patient's position would be likely to attach significance to the risk.*²⁴

To sum up, it is submitted that barring some well-established exceptional situation,²⁵ the patient's right to self determination which forms the basis to enable him to form a rational and informed choice whether to undergo particular treatment should be accepted as a basic human right without waiting for legislative or judicial action in this regard; that in order to safeguard this basic human right of the patient the motto of 'patient's interest is supreme' be always kept in mind, that in order to understand this right of the patient, the issues of patient's right to be informed or warned about the risks involved in the proposed treatment and the nature and extent of the degree of disclosure of such risks should not be mixed together; that since rights and duties are co-extensive with each other, recognition of patient's right should amount to doctor's duty to warn his patient; that before it is too late, the legislature should come forward to recognise this basic human right of the patient independently of intervention by so-called accepted medical opinion about the propriety of patient's right. Once the patient's right is recognised the principle of '*Ubi jus ibi remedium*' will naturally come to the rescue of the patient in

23. *Id.*, at 48 (*emphasis supplied*).

24. *Id.* at 495 (*Emphasis supplied*).

25. For situations in which patient's consent may not be a prerequisite for medical treatment, see generally P. D. G. Skegg, A Justification for Medical Procedures Performed without Consent, (1974) 90 L. Q. R. 512.

redressing the wrong or injustices, if any, done to him.²⁶ Further, while dealing with patient's right to self-determination the distinction should always be maintained between patient's general consent to agree to accept the services of a doctor on the one hand and his consent to a specific treatment i.e. surgery involving high risks. General consent will no more hold good to the cases of consent for specific treatment of such nature and general assumption that patient's consent is an empty formality should never be accepted to be a guiding factor to evaluate consent situation in doctor-patient relationship.

C. Disclosures of Risks and Standard of Care-Nature and Extent :

As stated earlier the doctrine of informed consent which rests upon the basic premise that before the doctor proceeds to treat the patient, he must inform and warn his patient about the risks inherent in the proposed treatment and to suggest and advise him about the alternatives so that the patient gets sufficient information and rational choice to decide for himself whether to go for the proposed treatment or not. Unfortunately the doctrine has not so far, succeeded to find desirable place in the social and legal set-up. Therefore, to understand the doctrine in its right perspective certain obvious controversies are to be necessarily resolved; for example; (1) Assuming for a moment that the doctor owes a duty to inform about the risks involved, has he a discretion as to the nature and extent of the disclosure of risks ? (2) What are the guiding principles or the criteria which the court should adopt to judge the extent of the disclosures of risks ? (3) What is the nature of the cause of action ? Is it a cause of action based on negligence i.e. breach of duty to take care or is it based on a breach of a specific duty to inform the patient which arises not from any failure on the part of the doctor to exercise due care and skill of his profession but directly from the patient's right to know on doctor's failure to disclose the risks ? In other words, does

26. Maintaining that if the patient has the right to be informed and warned Lord Scarman says, "Unless statute has intervened to restrict the range of judge made law, the common law enables the judges, when faced with a situation where the right recognised by the law is not adequately protected, either to extend existing principles to cover the situation or to apply an existing remedy to redress the injustice. There is here no novelty; but merely the application of the principle *Ubi jus ibi remedium*. If, therefore, the failure to warn the patient of the risks inherent in the operation which is recommended does constitute a failure to respect the patient's right to make his own decision, I can see no reason in principle why if the risk materialises and injury or damage is caused, the law should not recognise and enforce a right in the patient to compensation by way of damages." See *supra* note 24 at p 490

the failure on the part of the doctor to inform the patient about the risks involved in the proposed treatment amount to the doctor's breach of duty to take care invoking the law relating to negligence or assault and trespass?

The question of the nature, degree and extent of the disclosure came before the Court in *Bolam v. Friern Hospital Management Committee*²⁷ where John Hector Bolam who was suffering from the after effects of a mental illness was advised by a consultant psychiatrist, attached to the Friern Hospital, to undergo electro-convulsive therapy. The doctor who advised the plaintiff for this treatment, did not warn the plaintiff about the risks involved in that treatment one of which was the risk of fracture. The plaintiff signed the consent form. The doctor treating the plaintiff did not administer relaxant drugs to control the movement of his body while under treatment. In the course of the treatment, the plaintiff sustained severe physical injuries resulting in the dislocation of both hip joints with the fracture of the pelvis. The plaintiff claimed damages alleging that the doctors were negligent because: (1) they failed to administer relaxant drugs before they started treatment; (2) they failed to provide some form of manual restraint during the time the electric current was passing through his brain; and (3) they failed to warn him about the risks involved in treatment. Explaining the concept of negligence and thereby the extent of the disclosure of risk the court said:

In ordinary case which does not involve special skill, negligence in law means this. *some failure to do some act which a reasonable man in the circumstances would do, or doing some act which a reasonable man in the circumstances would not do and if that failure or doing of that act results in injury, then there is a cause of action*... In an ordinary case you judge that by the action of the man in the street... But where you get a situation which involves the use of some special skill or competence... the test is the standard of the ordinary skilled man exercising and professing to have that special skill.²⁸ Applying this principle to the case of a doctor the court said, "...in case of a medical man negligence means failure to act in accordance with the standard of reasonably competent medical man at the time."²⁹

The court in this case has gone even to the extent that "there may be one or more perfectly proper standards and if a medical man confirms

27. (1957) 2 All E. R. 118.

28. *Id.* at 121.

29. *Ibid.*

with one of those proper standards then he is not negligent."³⁰ The principle enunciated in this case or in *Bolam* may be summarised thus: a doctor is not negligent if he acts in accordance with a practice accepted as proper by a responsible body of medical opinion even though other doctors adopt a different practice. In short, law imposes upon the medical man the duty to take care but the standard of care is a matter of medical judgment.³¹

The other important case law involving the issue of patient's right to be informed vis-a-vis doctor's duty to disclose and also the issue of the nature and extent of disclosure to be made by the doctor is the House of Lord's decision in *Sidaway v. Board of Governors of the Bethel Royal Hospital and the Maudslay Hospital*³² which, with notable exception of Lord Scarman who expressed dissenting opinion, showed no inclination for any marked departure from the *Bolam* principles. In *Sidaway* case the plaintiff, Mrs. Sidaway who had suffered recurrent pain in her neck, right shoulder and arms underwent an operation which was performed by Dr. Murray A Falconer who was a senior neuro-surgeon at the first defendant Hospital. The operation, even if performed with proper care and skill, carried an inherent and material risk of damage to the spinal column and the nerve roots of Mrs. Sidaway and in consequence of that operation the plaintiff was severely disabled by partial paralysis. The plaintiff sued the defendants claiming damages alleging negligence because the doctor failed to disclose this inherent and material risk and had she been informed and warned about this, she would not have consented to the operation. The majority of their Lordships followed the principle enunciated in the *Bolam* case and expressly rejected the doctrine of informed consent advocated by Lord Scarman who gave dissenting opinion in this case. Lord Bridge of Harwick was very clear in holding the view that it is only the medical man and not the patient who can assess what is the best interest of the patient. He, therefore, categorically observed:

What degree of disclosure of risks is best calculated to assist a particular patient to make a rational choice as to whether do not to undergo a particular treatment must primarily be a matter of clinical judgment. It would follow from this that the issue whether non-disclosure in a particular case should be condemned as a breach of doctor's duty of care is an issue to be decided primarily on the basis of expert medical evidence applying Bolam test.³³

30. *Ibid.*

31. *Supra* note 20, Per Lord Scarman at p. 487.

32. *Supra* note 20.

33. *Ibid* at pp. 504-505.

The other judges also in this case i.e. Lord Keith of Kinkel, Lord Templeman and Lord Diplock, excepting Lord Scarman (dissenting judge), preferred to apply "reasonable doctor" test rather than "prudent patient" test probably assuming that it is only the doctor, howsoever incompetent he might be who is the best judge to decide what risks are material and what not and what should be the extent of disclosure. It is submitted that the standard of materiality is always subjective. It can never be objective because a particular risk may be regarded as material risk for one patient whereas the same risk may not be regarded as material risk for the other. For example, the possibility of a simple disfigurement as a result of a surgical operation may be material for an actress or model girl than to a labourer for whom it will be immaterial. Therefore, it does not appear to be in accordance with justice, equity and good conscience that the fate of the helpless patient should be left solely in the hands of such medical men who lack even the sense of human touch giving no due weightage to the economic, social and family considerations of the patient. A patient, for example who is hand to mouth and who is the only earning member to feed his family would better like to lead five years healthy and effective life than to scream in his bed and carry fifty years paralysed life which is burdensome not only to him but to his entire family.

The opinion favouring "Prudent patient test" have been unduly discarded on one pretext or the other. Firstly, judicial attempt to defeat the doctrine of informed consent has successfully been made on the ground that the doctor's duty to disclose the risks arises only when specifically asked and enquired by the patient. Absence of any such inquiry absolves the doctor from his duty to disclose the risk.³⁴ It is submitted that the fate of the patients is already unhappy, it will be unhappier still if they are themselves obliged to inquire about the risks. As the patient submits to the doctor after reposing confidence in him, the doctor having the full knowledge of the risks owes a duty to speak

34. *Ibid.* There is no evidence in the instant case that the patient asked the neurosurgeon a single question about whether there were any risks involved in undergoing the operation that he was proposing for her, or if there were, what were the consequences of those risks or the chances of their occurring.... "(Per Lord Diplock at p. 496)"when questioned specifically by the patient of apparently sound mind about risks involved in a particular treatment proposed, the doctor's duty must, in my opinion be to answer both truthfully and as fully as the questioner requires." (per Lord Bridge of Harwick at p. 503), "...Mrs. Sidaway could have asked questions. If she had done so, she could and should have been informed.. (Per Lord Templeman at p. 506).

i.e. disclose the risks without any specific inquiry from the patient. Doctor's silence itself will invalidate the consent given giving rise to doctor's liability based on assault and trespass.

Again, the doctrine of informed consent has also been criticised for being 'impractical' on the ground that "a doctor cannot set out to educate the patient to his own standard of medical knowledge on all the relevant facts involved;³⁵ that because of lack of or poor knowledge of the patient about medical science the patient" might be confused, frightened or mislead by more detailed information which (he) is unable to evaluate at a time when (he) was suffering from stress, pain and anxiety;³⁶ that "the patient may make an unbalanced judgment if he is provided with too much information [and is made aware of the possibilities which he is not capable of assessing because of his lack of medical training.... Thus the provision of too much information may prejudice the attainment of the objectives of restoring the patient's health."³⁷ It is submitted that if the doctor is convinced that the patient may get confused by more informations which are beyond his comprehension, he may, if he is really interested in protecting patient's interest, 'educate' the patient properly by going down to the standard of a "prudent patient". The requirement of providing information to the patient by the doctor does not necessarily mean to educate him and upgrade him to level of a doctor but to warn and inform him about the risks in "prudent patient's language.

The persons expressing solidarity with the medical profession feel apprehended that if the doctor is made duty bound to warn the patient and he, in compliance to his duty warns the patient about the treatment, risks inherent in such detail information may 'drive away the patient'. It is submitted that the possibility of the patient being driven away by the information about the risks is no justification for omission by the doctor to inform and warn the patient about the risk of proposed treatment. The apprehension of the patients being frightened and fled away may have adverse effect upon doctors in terms of their consultation fees. A patient is the best judge to decide whether to undergo treatment or not.

The importance of the doctrine of informed consent has been further undermined by those who unfortunately take for granted that the doctrine has compelled the medicalmen to think in terms of 'defensive medicine' i.e. the doctors may inevitably be concerned to safeguard themselves against claims, rather than to concentrate on their primary duty of treating their patients. There does not appear to be any justification in

35. *Id.* at 504 per Lord Bridge of Harwick.

36. *Id.* at 507 per Lord Templeman.

37. *Id.* at 509.

this apprehension of the medical profession because "one doctor's defensive medicine may well be another's idea of good practice. In other words, it may simply be a term to describe that kind of careful medicine which ought to be practiced, but some find inksome. Next, to engage in a dialogue with a patient in which the doctor explains the nature and the implications of treatment can hardly be called defensive medicine. It can only properly be described as good medicine."³⁸

Looking into the charges made against the doctrine of informed consent and after evaluating the propriety of these charges, it is submitted that the issue of the nature and extent of the disclosure of risks which is the most controversial aspect of the doctrine of informed will have to be decided without strict adherence to *Bolam* principle as approved by the House of Lords in *Mrs. Sidaway* case because it is the "prudent patient" test rather than "reasonable doctor test" which is ultimately going to fulfill the objectives for which the medical profession stands i.e. patient's interest is supreme. Medical profession which stands for safeguarding and protecting the interest of the humanity will be causing irreparable damage not only to the humanity but will be tarnishing its own image of being an honourable profession with a human touch. These probably might have been the objectives in mind which compelled Lord Scarman to observe,

If...the *Bolam* principle is to be applied to the exclusion of any other test to advice and warning, there will be cases in which a patient who suffers injury through ignorance of a risk known to the doctor has no remedy. Is there any difficulty in holding that the doctors duty of care is sufficiently extensive to afford a patient in that situation a remedy, if as a result she (he) suffers injury or damage? I think not.³⁹

It is in recognition of the patient's right to be protected from ignorant medicalmen that Lord Scarman went on to say :

The root principle of common law negligence is to 'take reasonable care to avoid acts or omissions which you can reasonably foresee would be likely to injure your neighbour' : (*Donoghue v. Stevenson* (1932) A. C. 562, 580 per Lord Atkin). If it be recognised that a doctor's duty of care extends not only to the health and well-being of his patient but also to a proper respect for his patient's rights, the duty to warn can be seen to be a part of the doctor's duty of care.⁴⁰

38. Ian Kennedy, *The Patient on the Clapham Omnibus* (Notes on cases), (1984) 47 *Mod. L. Rev.* 454, 469.

39. *Supra* note 33 at p. 491.

40. *Id.* at 491.

CONCLUSION

After going through the decisions concerning doctor-patient relationship right from the very inception of the doctrine of informed consent till to date, it is unfortunate to note that judicial policy appears to be in favour of restricting the scope of the doctrine of informed consent. It is still more unfortunate to notice that this attempt was materialised in the country which had fathered this doctrine and in countries whose sense of justice is evidenced in the evolution of equity courts. Such an attempt has been made even in complete disregard to some established principles of law and equity. If patient's consent is a pre-requisite before a doctor proceeds with the treatment, the consent given by the patient must conform to the principles of law of contract governing consent. Where, therefore, there is no 'consensus *ad idem*' or 'meeting of minds' of the doctor and the patient, the consent given by the patient is not "real" "true" and "free" consent. Where a doctor performs surgery on the patient without his consent, the patient may be allowed to proceed against such doctor for an action based on trespass. What is the justification of judicial attempt of converting the patient's action clearly based on trespass into an action based on negligence and thereby putting unnecessary burden upon the patient to prove causation where he has no option but to prove (causation) or fail (in action). Similarly, other judicial attempt to paralyse the doctrine of informed consent is the judicial policy of narrowing down the scope of the principle of 'duty to take care'. As per the House of Lord's decision in *Donoghue v. Stevenson*⁴¹ the root principle of common law of negligence is to "take reasonable care to avoid acts or omissions which (one) can reasonably foresee would be likely to injure (his) neighbour."⁴² If, therefore, the scope of the principle of 'duty to take care' has been so widened so as to hold the manufacturer liable even to the consumer with whom he had no direct dealing, it will be very much justified in holding the doctor liable to his patient who suffers loss because of direct action of the doctor. It will, therefore, be very strange and unnatural if the doctor's duty to take care does not extend to his patient with whom he has direct dealing and the risks involved in the proposed treatment is directly in his knowledge. The doctor's liability may be fixed by applying 'reasonable foresight' test also because the doctor with his ordinary prudence could have foreseen the risks involved in the proposed treatment and also that non-disclosure of risks by him might prevent his patient from the opportunity of making a 'rational' 'intelligent' and 'informed' choice as to whether to undergo the proposed treatment or not.

41. (1932) A.C 562 (H.L.).

42. *Id.* at 580.

Similarly emphasis upon the 'reasonable doctor' test in complete disregard to the 'prudent patient' test has also conferred undue advantage upon the medical profession. Thus, with an intent to give undue favour of 'reasonable doctor test' unnecessary and unconvincing distinction has been attempted between advice by a solicitor given to his client and advice by the doctor (i.e. advice as to treatment, procedure of treatment and advice alternatives etc.) given to his patient. The 'reasonable doctor' test has made the doctor a judge in his own cause (i.e. to decide what risks are to be disclosed and what not; what risks are material and what not etc.) which is against the concept of natural justice. The distinction so attempted, it is submitted, is a distinction without difference. This distinction has been made only to emphasise that a client can hold his solicitor responsible for such advice, if the client who gets the opportunity to prove this advice to be wrong succeeds, whereas the patient will not succeed because it is the doctor who is the sole judge to decide whether the advice was wrong or not. It is submitted that since wrong advice of the solicitor may, at the most cause only financial loss to his client, a wrong advice by the doctor may lead to death of the patient. The recognition of 'prudent patient' test is therefore, the only desirable approach to deal with doctor-patient relationship to serve the cause of humanity.

Since rights and duties are co-extensive with each other, one person's rights impose a corresponding duty upon the other and *viceversa* and hence where the patient, by virtue of this principle of jurisprudence, has a right to be warned, he must have the remedy in view of the settled principle of '*ubi ius ibi remedium*.'

Attempts to restrict the scope of the doctrine of informed consent have so been made by charging this doctrine for promoting 'defensive medicine' or opening the 'floodgates' of litigations against doctor. It is submitted that these charges, do not have any sound justification.

The challenges thrown before the law by scientific innovations in the field of medical science have yet to respond in a desirable perspective. The medical profession has, it appears, succeeded in imposing its supremacy upon legal position. It is time that the legislature and judiciary must respond to those advances in a correct perspective so that a harmony is maintained between the legal control and the scientific innovations. Before this environment is developed, the medicalmen must evolve certain self restraints so that the developments in the medical science are used to achieve the goal of excellence. The interesting commercialisation of medical profession which had at one time the credit of being called as the service of human being must be geared down so that age of old values are revived in the days to come.

PSYCHIATRY AND LAW : A GENERAL DISCUSSION

Dr. P. B. BEHERE*

Introduction

Law is a very important component of psychiatry. Before 1843 there was no law for mental illness. The basic aim of law is not only to protect the sane but also in-sanes. The basic policy of law is 1. No body is guilty till he is proved responsible. 2. Every man is sane until proved otherwise. 3. Every man who is sane should control his behaviour and conform to the law. The question of law came in January 1843 a young, Scotman Daniel M' Naghten, developed the delusion of persecution against Sir Robert Peel, the Prime Minister of England, but shot the private secretary Mr. Edward Drummond instead. He had attempted to escape from his persecutors by leaving Scotland and going to England or France. On many occasions he had complained to his father and various public authorities. In a sensational trial, M' Naghten was declared not guilty by reason of insanity. Queen Victoria, the Prime Minister, the press, and the public could not accept what seemed to be exculpation of a defendant they were convinced that it was a political assassination. An investigation by the House of Lords culminated in the summoning of the 15 Chief Justices of England to Parliament. The Justices were asked to respond to a series of questions about the laws of England relevant to the acquittal by reason of insanity of defendants such as M' Naghten. Their responses to these questions have been immortalized in the criminal law throughout the English-speaking world as the M' Naghten rules of insanity. M' Naghten's rule has been accepted in India as a law of criminal responsibility and is embodied in section 84 of Indian Penal Code.

In India there is a 79 years old Act to govern mentally ill persons known as Indian Lunacy Act, 1912 (Act No. IV of 1912). It is outdated and attracted many shortcomings which included :

1. Definitions was not given. Certain words were used like 'idiot', 'imbacile', 'asylum' which were outdated.
2. There was no involvement of psychiatrist.

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3. It did not give any place for general hospital psychiatric units.
4. There were cumbersome admission procedures which needed longer time for admission.
5. The voluntary admission was very limited.
6. There was no provision for emergency admission.
7. It was surprising that the patient was kept in jail for observation.
8. Magistrate was in between doctor and patient there was a provision for the role of magistrate.

Mental Health Act-1987

Indian Psychiatric Society many times discussed the revision of Indian Lunacy Act, 1912 and sent recommendations to the government. Mental Health Bill, 1981 was introduced in Rajya Sabha on 14 Dec. 1981. The Mental Health Bill, 1986 was passed by Rajya Sabha on 26th November 1986. It was discussed in the other House on 18 March 1987.

Givings and Misgivings of the Mental Health Act

It had 10 chapters and followings are some of its misgivings.

Chapter I

It deals with the definition of 'psychiatrist' and the 'Mentally ill person' which includes, a person who is in need of treatment by reason of any mental disorder other than mental retardation.

The above definition does not say who has to decide the need for treatment (Relative, Medical Practitioner, Police or Court or psychiatrist). It covers all sort of psychiatric disorders whether it is psychotic, neurotic, psychosomatic, stress reaction and behavioural problem. This raises the problem : whether all the categories of mentally ill person be covered under the Act for their treatment. And further, it will not give them a right to keep their personal problem secret and place of treatment. It is submitted that the Act should be applicable only to such mentally disordered person who is not capable of exercising his judgement and self-restraint on his behaviour and also to person considered to be suffering from such serious mental disorder by a competent authority.

Chapter II

This Chapter deals with establishment of an authority for mental health at the central and state levels. The functions of mental health authority are as follow : It shall be incharge of regulation, development, direction and co-ordination with respect to mental health services under

the government and all matters which under the Act are the concern of government or any officer or any authority subordinate to the governments shall supervise the psychiatric hospitals and psychiatric nursing home and other mental health services agencies including places in which mentally ill person may be kept or detained. Further, it shall advise the government on all matters relating to mental health. And finally the authority shall discharge such other functions with respect to matters relating to mental health as the government may require.

For the purpose of this section 'Mental Health Services' includes in addition to psychiatric hospital and psychiatric nursing home, observation wards, day care centres, in-patient treatment in general hospitals, ambulatory treatment facilities, convalescent homes and half way homes for mentally ill person. The creation of mental health authority is a definite advancement over the older lunacy act. But it has not mentioned who will constitute the said authority, whether an administrator, politician or a psychiatrist or someone from judiciary or group of person. If a non-professional constitutes the mental health authority then the danger is obvious which will include abuse of authority.

Chapter III

This chapter deals with the establishment or maintenance of psychiatric hospitals and psychiatric nursing homes in private sector (non government), which had no existence earlier. There is a provision of establishing separate psychiatric hospitals and psychiatric nursing homes which may be established or maintained for : (a) Those who are under the age of 16 years. (b) Those who are addicted to alcohols or other drugs which leads to behavioural changes in persons. (c) Those who have been convicted of any offences. (d) Those belonging to such other class or category or persons as may be prescribed.

Section 6, sub-section (1) of this chapter states that on and after the commencement of this Act, no person shall establish or maintain a psychiatric hospital or psychiatric nursing home unless he holds a valid licence under this Act. A system of licencing such services has been introduced with a procedure of getting a licence. It makes provisions for application to the licencing authority; duration of validity of licence—5 years; renewal of the licence—1 year before the due date of expiry; revocation appeal—to licencing authority in case of refusal to grant of licence or renewal licence or revoking licence.

Clause 10 of Chapter III, says that every psychiatric hospital or psychiatric nursing home shall be maintained in such manner and subject to such conditions as may be prescribed. Surprising the question who

shall prescribe such condition has been left uncertain. It should have mentioned mental health authority. A provision to protect moral, mental and physical well being of the inpatients has been kept to protect their human rights in the psychiatric hospitals and nursing homes licenced by the government.

Clause 13 of Chapter III makes a provision for inspecting Officer. It says that an inspecting officer may at any time enter and inspect any psychiatric hospital or nursing home and require the production of any records which are required to be kept in accordance with the rules made on this behalf for inspection. But the inspecting authority is not defined. If he is non-psychiatrist then the complaint of a patient of delusion which may be directed at psychiatrist would not be assessed in right perspective. The inspecting a file of patient means leaking confidentiality of patient and its information which will be unethical. And, therefore, it is suggested that the professionals be involved in this process.

On the one hand, the concept of modern psychiatry, community psychiatry and National Health Programme for India envisage to encourage application of mental knowledge in general health care; to promote community participation in mental health services; developing stimulating efforts towards self help in the community integration of basic mental health into general health services in the primary health care at the village and subcentres level, primary health centres and District Hospital level and to link mental health services with the existing community development programmes. On the other hand, a provision has been made in the law to licence the practice of psychiatry which is an encroachment on the professional rights of psychiatrist and also against the basic spirit of National Health Programme. If this law is enforced as such the integration of mental health in general health in non-governmental set up will become extremely difficult on the ordeal of obtaining licence and the psychological strain and burden on private administration would rather avoid mental health services and provide treatment to these patients under the grab of somatic illness which would deprive many patients from the skilled psychiatric treatment and facilities. Further, there is discrimination in psychiatric practice and medical and surgical practices.

Chapter IV

It deals with the admission and detention in psychiatric hospital or psychiatric nursing homes. *Part I* deals with admission on voluntary basis on request by major or by guardian; however, earlier admission on the request of guardian was not possible and this way the admission

procedure has been simplified. *Part II* deals with the admission under special circumstances which is an advancement and further simplifications of the procedure, violent uncooperative patients unable to express their willingness may be admitted on application by a relative or a friend if the medical officer incharge of psychiatric hospital or nursing home is satisfied upto a period of 90 days without involvement of Magistrate. However, in case of fear of unlawful detention, Magistrate can be approached and discharge may be obtained as per provision. Coming to *Part III*, it deals with reception order on application, or production of the mentally ill person before Magistrate and admission and detention of prisoners under trial convicted for observation and treatment and miscellaneous provision in relation to reception order.

Chapter V

Deals with inspection, discharge, leave of absence and removal of mentally ill person. A provision of appointment of visitors has been made who shall be not less than five persons of whom one shall be a medical officer, preferably a psychiatrist, and two shall be social workers and the Head of the medical services or his nominee shall be an Ex-officio visitor of all psychiatric hospitals and nursing homes in the state. There is a provision of monthly inspection by visitors. The discharge procedure includes discharge by medical officer incharge of psychiatric hospital; discharge on application by the person on whose application the patient was admitted; discharge on the undertaking of relatives or friends etc. for due care of mentally ill person; discharge of the person on his request; and discharge of person subsequently found on requisition to be of sound mind. By and large the discharge procedure have been made easy and more simplified.

Chapter VI

Deals with judicial requisition regarding alleged mentally ill person possessing property, custody of the person and management of his property. Provision regarding appointment of guardian of mentally ill persons, appointment of manager for management of property of mentally ill person, their remunerations, duties, powers (legal and business power) of guardian and manager, removal of guardian/manager and power of courts have also been described.

Chapter VII

Deals with the cost of maintenance of mentally ill person in the psychiatric hospitals or psychiatric nursing homes. Provisions have been made to meet the cost out of the estate of mentally ill person, if he has any, or from persons legally bound to maintain him. The person's legally

bound to maintain mentally ill person have not been absolved from such liability. However no provision have been made for such persons who do not have any estate or the relatives who can not bear the cost.

Chapter VIII

Deals with protection of human rights of mentally ill person. It says that no mentally ill person shall be subjected during treatment to any indignity (whether physical or mental) or cruelty. Further, no mentally ill person shall be used for the purpose of research unless if it is of direct benefit to him for the purpose of diagnosis or treatment. Cruelty has not been defined and cruelty outside hospital viz. by faith healers is not covered.

Chapter IX

Provides for penalties and procedures for establishment of maintenance of psychiatric hospitals or nursing homes in contravention of the law, or for improper reception and other offences. General punishment for offences is six months imprisonment and/or fine which may extend upto Rs. 500.00. Penalty for contravention of law regarding improper reception is 2 years imprisonment or with fine which may extend upto Rs. 1000.00 or both.

Chapter X

Deals with certain miscellaneous provision regarding pensions of mentally ill person, legal aid to mentally ill person at the state expense, protection of action taken in good faith and powers of Central and State Government.

Improvements of this Act over older Indian Lunacy Act 1912 :

1. Defining psychiatrist
2. Creation of mental authority
3. Simplification of admission and discharge
4. Protection of the human rights
5. Legal aid to the mentally ill person at state expense
6. Provision regarding pension & legal aid to mentally ill person

Suggestion were made on 18th March, 1987 when the psychiatrists discussed the Bill and made following suggestions which unfortunately did not attract the attention of Parliament :

- (i) It shall be applicable only to such mentally disordered person who are not capable of exercising judgement and self restraint

on their behaviour and to persons considered to be suffering from such serious mental disorder by a competent authority.

- (ii) Mentally ill person means a person suffering from such serious mental disorder which interferes with his social judgement and his ability to maintain self restraint or behaviour and also who is in need of treatment by a psychiatrist or by other competent authority.
- (iii) Nothing contained on sub-section (i) shall apply to psychiatric clinic run by qualified psychiatrist possessing M.D./D.P.M. diploma in psychiatry and which are exclusively providing out-patient services.
- (iv) Any person found to be inhuman and cruel to mentally ill person during their treatment outside psychiatric hospital or psychiatric nursing home shall be punishable with imprisonment for a term which may extend to 6 months or with fine which may extend to Rs. 5,000.00 or both.

The time has come when the psychiatrists and the lawyers may sit together and may come out with recommendations to make the mental Health Act, 1987 more meaningful and get vision in a correct perspective.

Reference :

- Goldman, H.H. (1984). Review of general psychiatry. Ed. Goldman, H.H., Lange Medical Publications, U.S.A.
- Lal, R.N. and Prasad, B. (1976). The Indian Lunacy Act 1912 (Act No. 4 of 1912). Gyanodaya Press, 273 Katra, Allahabad.
- The Mental Health Bill, 1981. Rajya Sabha Secretariat, New Delhi.
- The Mental Health Bill 1986, Rajya Sabha Secretariat, New Delhi.
- The Mental Health Act 1987, Eastern Book Company, Lucknow.

LEGAL ASPECTS OF ANAESTHESIA PRACTICE : AN OVERVIEW

Dr. (Mrs.) P. SHARMA*

In the rising tide of medical litigation and professional indemnity premiums, it is necessary for anaesthetists to know the various legal aspects of practice of anaesthesia. It is for the benefit of the medical profession and also to improve the standard and quality of treatment, certain laws or codes of practice are implemented from time to time with the advancement of medical facilities and knowledge. The present article highlights the role of anaesthetists in the patient care, their legal liabilities and the various precautionary measures taken by them to protect themselves from litigation.

Adverse consequence of medical treatment or failure to treat, whether explained or unexplained, may lead to litigation. Minor complications or unsuccessful anaesthetic techniques are frequent in anaesthetic practice but major injuries or death is infrequent. The matter is litigated only where there is a breakdown in the doctor patient relationship.

There are certain matters in the pre-operative phase which have consistently presented problems for anaesthesiologists in the legal forum. In this regard, the practical aspects may be considered under the following headings :

1. Importance of fitness for anaesthesia

The purpose of anaesthesia is to keep a patient alive and free from pain and having done this to produce the best possible conditions for surgery. Keeping him alive depends on : a. preparing him carefully before operation; b. maintaining his blood volume and his circulation; c. securing his airway; and d. adequate ventilation.

A patient is much more in a better state to withstand the anatomical assaults of surgery if he is physiologically near normal before the operation starts. If he is abnormal or not within the physiological limits, the chances of complications are very high and they are labelled as high risk. In such cases the following things are considered : 1. What is the abnormalities and how severe they are; and 2. correct them as far as possible.

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Some patients are at particular risk, if possible surgery should be delayed, and appropriate preoperative treatment should be instituted before operation.

Undiagnosed diseases are a great danger. The patient who arrives in the theatre with undiagnosed disease condition may or may not be relevant to surgery is at much greater risk than a patient who is diagnosed and treated and the anaesthesiologist is aware of the pathology. This helps the anaesthesiologists to choose a technique and time best for the patient with regard to his disease state.

There are risks of drugs or medication which interferes with the anaesthesia and cause unexpected dangerous situation. For these reasons, all patients for anaesthesia should be examined and evaluated their fitness and treated appropriately before any routine operation. In emergency situation also these processes are required as far as possible.

2. Pre-operative check up :

Usually the patient consults first the surgeon and when his/her operation is decided, he is examined by the anaesthesiologists in one of the following ways :

I. Preoperative visit : The purpose of the preoperative visit by the anaesthetist are : (i) To introduce himself to the patient; (ii) to evaluate fitness; (iii) to institute psychological and pharmacological treatment; and (iv) Patient-Doctor relationship.

The patient is not familiar to the anaesthetist nor the anaesthetist is familiar to the patient. In relation to the operative procedure the responsibility to inform the patient must necessarily falls upon the surgeon. Regarding anaesthetic part the information by the surgeon is inadequate. Therefore, it is the duty of the anaesthetist to visit the patient prior to surgery. Once the proposed operation list is sent to the operation theatre and anaesthesia department the concerned anaesthetist visits patient in the evening. The patients are disturbed, anxious and nervous for the outcome of surgery. The process of anaesthesia is a part of surgical events, therefore, reassurance psychological support and pharmacological premedication is important for smooth and uncomplicated result.

Fitness for anaesthesia is evaluated on the basis of careful history, examination and investigative findings. Broad outline of the anaesthetic technique to be employed is discussed with patient. It is also important

to inform the patient of any minor complications usually faced by the patient like vomiting, dryness of mouth, pain, removal of tooth, etc. during the course of anaesthesia.

At the end the patients are advised to take drugs for night sedation to free from anxiety and the required premedication before the operation. Any important instructions like no food or drink after last meal, bath, brushing the teeth, antiseptic gargles, empty the bladder before operation, etc. are also given.

II. Anaesthetic OPD : In some places anaesthetic out patient clinics are run routinely like OPD clinics in other specialities. The patient consults the anaesthetists well before he is scheduled for surgery, this gives enough time for the doctor to prepare his patient by advising psychological, and pharmacological treatment. It is also possible to correct any associated medical diseases by treatment or referring to medical specialists. This also enables the doctor to advise necessary investigations for diagnosing as well as exercising adequate care at the time of anaesthesia and surgery.

III. Consultation or reference : In consultation or reference practice the patient is referred for consultation regarding his fitness for anaesthesia before he is posted for surgery. This is for evaluation, change of treatment, investigation and physiotherapy, etc. well in advance so that the patient is made as fit as possible before he is operated upon.

Consent : It is the responsibility of the surgeon to inform the patient about the operative procedures and certain material risks associated with treatment, but there will still be occasions when patients seek information from the anaesthetist. The anaesthetist has to consider to what extent he should tell the patient about the anaesthetic procedure he intends to administer. There is no legal doctrine of informed consent even in countries like England, and America. Whenever the patient or his relations seek information from the anaesthetist or ask questions, he must give him as much information as he requires. The duty to inform or answer questions is subject to the exercise of clinical judgement and to the interest of the patient, and all those that might prove harmful to the patient should not be disclosed to him and should be told to his near relatives. The anaesthetist should be aware that there are increasing expectations of him, including that he should carefully consider the information which should be volunteered to the patient. The formal documents of consent which the patients are required to sign are of little

practical value in litigation and provides no defence to the anaesthetist on an issue of informed consent. Many informations given to the patient are verbal only.

In this connection, the negligent act or negligence on the part of the anaesthetist has to be proved by the plaintiff in the court. As far as duty to inform, or a duty to answer the patients questions regarding treatment and possible, complication is considered, it is very difficult to tell every thing to the patient, a second explanation is required in case any untoward effect is recorded which may endanger the life. To what extent the duty of disclosure vowed by a doctor and a hospital to a patient after treatment, it is yet to be considered in the legal practice of medicine.

Signature on consent form : After an informed consent the patient's or relations in case of minor, is asked to sign a consent form in presence of a witness. Any further advancement or major change in previously instituted treatment, unexpected danger are informed and a modified consent is taken.

Usually one begins with the fundamental assumptions that the surgeon has obtained proper consent for the surgical procedures and that anything concerned with operation must be in an anaesthetised patient only. From the anaesthetic standpoint it is to be general not necessary to obtain a second totally separate consent with another consent form or to provide a full blown explanation of potential risks of the procedure. However, if there is any special potential problem from anaesthetic standpoint, particularly patients unusual condition, etc., it is advisable, to obtain a special consent after informing the patient of the impending danger and a modified consent is obtained, similar practices are followed in other countries like U.K. and U.S.A.

Patients right to know or right to be informed : In the routine way, while taking the medical history of illness and examination, the patient's questions are also answered or made aware of the following thing :

- A. Complications-The usual complications of the proposed technique.
- B. Possibility of complications related to proposed technique in the presence of pre-existing medical diseases.
- C. Postoperative recovery and associated problems are also explained to the patient.

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- A. Complications-The usual complications of the proposed technique.
- B. Possibility of complications related to proposed technique in the presence of pre-existing medical diseases.
- C. Postoperative recovery and associated problems are also explained to the patient.

- D. Patients are also informed that unavoidable complications like drug reactions, blood transfusion reactions, etc. may take place and for which doctor is not responsible.
- E. Presence of any near relative in the hospital is essential till he is under the effect of anaesthetic or sedative drugs.

Standard of care Standard of care varies from one country to other. In India standard is variable from one state to other, even one hospital to other in the same city. There are some minimum standard of care laid down by American law and recently by Indian Society of Anaesthetist (1990). There was no standard of care laid down by the anaesthetist in India till December 1990. The patients or the relatives are informed about the facilities available in the set up. Limitations with respect to the investigative facilities, monitoring equipments, availability of trained specialist staff, assistants, nursing staff, post operative facilities, intensive care units, etc. Some times other related specialists like Physiotherapist, cardiologist opinion is also required. The patients are also informed of the standard of care available in other hospitals in the country. In this connection, the following considerations are taken into account :

1. Patients condition and urgency of operation : If the patient is serious and emergency surgery has to be done and he can not be transferred to any other well equipped centre, he should be accepted for surgery. Problems involved during surgery and the type of care he is going to get in the post-operative period should be explained to the patient about the risk/benefit ratio.
2. Availability of adequate facilities and high tech era in the field of medical practice verses minimum facilities available for a particular surgery and anaesthesia is also explained to the patient.

Anaesthetic record : Record keeping is very essential it informs the evaluating factor, trends and course of anaesthetic period. Records are also used for teaching, research and subsequent review. It is also used as legal documents.

Anaesthetic Practice in India

The anaesthetic practice in India is very poor. Majority of the patients are not aware that they should also consult the anaesthetist before subjecting themselves for surgery. Anaesthesia OPD services are very rare in India and occasionally the patients are referred to anaesthetists

for consultation by the concerned physician. This is applicable to private practice, Institutions and health centres wherever surgery is performed. The short-comings, observed in our country are : (1) standard of care is not uniform throughout the country. Here it may be emphasised that certain centres are having all the facilities labelled earlier whereas others, mostly state level hospitals, are not having the adequate facilities, thereby lowers the standard of care. (2) As no group or organisations or responsible for determining the minimum standard of care for any patient undergoing various surgical treatments at the levels of private practice, institutional, government hospitals and dispensaries, etc.

The above factors in our country could be due to lack of health education, health educator, health awareness, poor socio-economical status, overpopulation, poor diagnostic and investigative facilities, etc.

The above mentioned problems makes the anaesthesiologist's job risky. There are no established outpatient clinics for preoperative evaluation of the patients planned for surgery. Anaesthesiologists are in contact with patients or his relations for a very short period and it is difficult to explain and discuss with them the various problems likely to be faced in the event of anaesthesia. Similarly for the patients also it is difficult to present his problems freely to a doctor who is visiting for the first time a day before surgery.

Shortage of trained and qualified anaesthesiologists as compared to the surgical specialities increases the work load of the anaesthetist and the heavy and long duty hours, busy emergency services, over exhaustion, increased mental stress etc. makes the anaesthetist job more risky.

The monitoring facilities are very poor and far behind the modern medical advancement. The anaesthesiologists are dependent upon the clinical senses only, which reflects the gross physiological changes during anaesthesia very poorly.

INDIAN SOCIETY OF ANAESTHETISTS RECOMMENDED MINIMUM REQUIREMENTS FOR SAFE ANAESTHETIC PRACTICE IN INDIA

A. Operation Theatres—Minimum Requirements :

- A-1. Every operation theatre, except where minor procedures are performed, must be air-conditioned to keep the room temperature between 20-28 C and humidity between 60-70%, to minimise chances of wound infection, heat induced complications to the patient

and fatigue to theatre personnel. Appropriate changes may be necessary in theatres where neonates are operated upon. The administrators should not think this facility a luxury.

- A-2. Operation theatres and intensive care units must have emergency lighting and power supply arrangements through appropriate power generators. Alternate methods for suction like hand or foot operated suction units must be available in these places.
- A-3. Every hospital must designate one senior Anaesthesiologist, having post-graduate degree or diploma with five years experience, working in the hospital to advise the authorities on the following :
- (a) in planning/expansion of operation theatres and I.C.U.
 - (b) in the choice and maintenance of anaesthetic, resuscitatory and monitoring equipments for the hospital;
 - (c) to organise and supervise the servicing and maintenance of anaesthesia, resuscitatory, ventilatory and monitoring equipments of the hospital; and
 - (d) to guide and train personal in managing acute emergency cases.

B. Anaesthesia Care—Principle :

- B-1. Anaesthesia shall be administered only by a qualified anaesthesiologist or a postgraduate/trainee in the department under the direct and continuous supervision of a qualified anaesthesiologist.
- B-2. Every patient presenting for anaesthesia must have a preanaesthetic consultation or evaluation by an anaesthesiologist.
- B-3. Basic/Staffing, equipments and drugs and protocols for safe administration of anaesthesia are essential requisites.

C. Staffing :

- C-1. A suitably trained or qualified theatre assistant must help the anaesthesiologist in all critical areas like operation theatre, recovery ward and I.C.U.
- C-2. The assistant must be exclusively available to the anaesthesiologist until the anaesthesiologist indicates that he is no longer required. During induction, maintenance or at the conclusion of anaesthesia the assistant should always be available to help the anaesthesiologist.

D. Anaesthesia Record and Machine :

- D.1. For every patient under going anaesthesia, be it general, regional, local or intravenous sedation, anaesthesiologist should maintain an anaesthesia chart/record, complete and duly signed the same.

- D-2. A check list in respect of the anaesthesia machine shall be maintained. This check list must be completed before starting the operation list.
- D-3. Every operation theatre must have as many number of anaesthesia machines as there are operating tables.
- D-4. Every anaesthesia machine must have incorporated in it an oxygen supply pressure failure warning device. It is also desirable to have an oxygen analyser in addition to oxygen supply pressure failure warning device in each anaesthesia machine.

E. BASIC EQUIPMENT :

Each operation theatre must have the following :

- (a) Stethoscopes
- (b) Sphygmomanometer with adult and child cuffs.
- (c) Atleast two laryngoscopes with three blades appropriate to the age of the patient treated in the hospital.
- (d) Suction apparatus and suction catheters exclusively for the anaesthesiologist.
- (e) Appropriate face masks.
- (f) A range of oropharyngeal and nasopharyngeal airways.
- (g) A range of endotracheal tubes, connectors, introducers and catheter mounts.

F. Intraoperative Monitoring :

- F-1. The best possible monitor is the anaesthesiologist. Every patient undergoing any type of anaesthesia must be supervised by an anaesthesiologist. He must be present right from the time of induction of anaesthesia, to the conduct of the whole anaesthetic, termination of the procedure and transfer of the patient to the recovery area.
- F-2. Continuous monitoring of ventilation and circulation by clinical observations must include the following :
- (a) Chest wall movement and movement of reservoir bag.
 - (b) Colour and response to surgical stimulus.
 - (c) Auscultation of heart and breath sounds by a precordial or oesophageal stethoscope.
 - (d) Pulse rate and blood pressure should be measured atleast every five minutes in every patient receiving any form of anaesthetic or sedation.

- F-3. Every patient subjected to anaesthesia must be monitored by a cardiophone. It should be displayed before induction and continued until further surveillance is deemed unnecessary.
- F-4. Every operation theatre suite must have a readiness one defibrillator.
- F-5. In all paediatric patients the core temperature either by rectal or oesophageal route must be monitored both postoperatively as well as in the recovery ward.
- F-6. Wherever necessary Pulse oximetry and endtidal CO_2 may be measured. The same applies to neuromuscular function monitoring.
- F-7. Monitoring of intra-arterial, central venous and pulmonary artery pressures should be done only when indicated as they are all invasive methods.
- G-1. The recovery area should be located in an area appropriate for the purpose close to the place where the anaesthetic was administered.
- G-2. Ideally every operation theatre should have one recovery area or a group of operation theatres in the same floor may have one recovery area.
- F-3. The transfer of the patient to the recovery area must be supervised constantly by an anaesthesiologist who is also responsible to the patient until discharge from the recovery room.
- F-4. Monitoring of parameters must be continued in this recovery area employing appropriate monitors where considered necessary. The recovery area must be well equipped to ensure patient safety at all time.
- F-5. A separate scoring chart must be filled up for every patient in the recovery area and duly signed by the anaesthesiologist.

Conclusions

It is important for all medical personnel including anaesthetist to be aware of and concerned about the legal aspects of their medical care and potential exposure to legal liabilities. However, potential legal problems should not make, someone to practice "defensive medicine". Inadequate or improper practice as a result of fear is dangerous to both the patient and the doctor. Therefore, the lawyers should also pay attention to the shortcomings and facilities provided to the doctors. The Government of India and other concerned bodies should seriously look into this aspect and provide better service conditions and facilities

to match with the modern technology and developments in the concerned field. It is time the doctors and law academic must sit together and prepare a model for the legally and medically safe recourse in the matter.

Reference :

1. Eichhorn J.H., Coper J.B. Cullen D.J., Mater W.R., Philip J.H. and Seeman R.G. (1986) Standards for patient monitoring during anaesthesia at Harvard medical school. J. Am. Med Soc, 256, 1017 - 20.
3. Medicolegal aspects of anaesthesia Michael J. Powers and George. From General Anaesthesia 5th ed. Nunn J.F., Utting J.E. Brown B.R.

MEDICO-LEGAL INJURIES : PROBLEMS AND SOLUTIONS

Dr. S. V. SHARMA*

Medical profession has been considered a 'noble profession' on account of its nature of duties. By and large it has enjoyed a great deal of belief and faith of the public at large and patients in particular. Medical practitioners too have always on their part played with best of intention to help the patients. However, with the increasing commercialisation of the medical profession, the patients and their relations are not only subject of stresses and strains but also getting more and more legal oriented for compensation suits. It is indeed their right claim. The legal consciousness, however in retrospect is making the medical practitioners also more carefree in dealing with the patients and their relatives. It is doubtful whether it is a healthy sign. Since for every act of a doctor as long as, things move in a right direction whether done wrongly or rightly is just. However, if the act has led to the death of an individual or other complications acts are brought to limelight by our learned legal advisers, the medical men are penalised. We can not be unaware of 'osteopaths' manipulating the fractures without any painkilling drugs/anaesthesia, fastening the limb with bamboo-sticks, tight bandages etc., leading to vascular or neural complications leading to gangrene of the part and more often to complications such as malunion, stiffness of joints, deformities, etc. Another situation is where inadequate care by the industrialists while manufacturing a machine lead to loss of a limb or even life such as Thrasher injury, putta injury etc., similarly criminals are subjected to third rate treatment by police which leads to loss of limbs. Have these people ever been penalised by the law? There are several such examples. Medico-legal injuries similarly have rarely found an adequate attention by the legal practitioners, as well as the medical men. By and large there is an attitude of 'ignore' and avoid the medicolegal injuries, by the injured and the doctors as the legal procedures in our society are very complicated and time consuming.

The purpose of this paper is therefore, to highlight the pitfalls in the management of medico-legal injuries where the organisational deficiencies lead to delay in the management of these patients.

In one of our studies conducted in the Department of Orthopaedics (Agarwal 1988) it was observed that road traffic accidents form one of the major causes of extensive injuries to the skeletal system (43.75%) which is also one of the commonest medico-legal injuries. Other forms of medicolegal injuries are firearm injuries. Industrial accidents (eg. Bhopal gas accident, chernobyl accident) or accidents sustained on duty, suicidal/homicidal accidents and many others. All such injuries which are liable to be sued in the court of law for compensation or otherwise are considered to be medicolegal injuries. It is a very vast subject encompassing various kinds of injuries inflicted on the human body. The injury inflicted may not be apparent such as mental disturbances due to mental torture etc., The present paper therefore, is limited to only injuries afflicted on the locomotion system.

Site of accident and natural fate of victims :

The natural fate of an injured victim in most parts of our country following a road traffic accident, one of the commonest medicolegal injury, is either left in isolation for hours together or surrounded by onlookers who also disappear no sooner the police arrives. By and large the injured patient have no kith and kin available by their side for quite some time due to lack of quick communication facilities in the hospitals/police stations or at the site of accident.

As a rule the police arrives very late at the site of accident. Very often it is the co-passenger or passers by who bring the casualties to the nearest medical aid centre i.e. usually a government hospital. The medicolegal formalities in these hospitals usually takes the upper hand and the treatment of the patients is as a rule delayed considerably. By and large, these hospitals even do not have the basic infrastructure and facility to deal with major casualties. Consequently the patient are again referred to either a medical institution or a district hospital. At these hospitals also patients very often have to wait for sufficient length of time for want of operating facilities, large number of waiting patients, poor resuscitative facilities etc., Furthermore the patients very often are transferred from pillar to post without even a first aid. The first aid is comprised of resuscitative measures, relief of pain, support of the injured limb by a proper splintage, clean dressing of the wound, immunisation and a suitable bactericidal drug. By and large the onlookers or the copassangers tie tight clothings around the limb, dress the wound or to control bleeding from the wound an untidy cloth is tied around the wound and the injured limb is left unsupported. During this long awaiting period the patient as a rule is destined either to lose

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his life, the limb or the crippling disabilities due to the gross neglect and delay in the treatment.

Observation :

In the above scenario of delay and neglect, it is suggested that every individual of the society both urban and rural must be trained to provide the first aid to any injured victim. However, the civil administrators and many public servants such as police who are serving the society in some form or the other as government servants must have necessarily an adequate training in first aid and should be made responsible for the transportation of the injured victims particularly for accidents or injuries where in general people try to avoid. Besides, any delay in the initiation of the treatment due to negligence or neglect of giving first aid or delay in the transportation must be taken into account and concerned police and civil administrators be penalised. Further more neglect at various district hospitals in the initiation of the treatment should also be accounted for.

Hospital Services

First Information Report (FIR)—

Lots of precious time is lost in lodging FIR. As a consequence the patients are denied the best chance of their treatment and survival. Furthermore, a copy of these recordings are never handed over to the hospital authorities. Many a time the legal initiations are concealed and the patients take away all the medical documents at the time of discharge from the hospital. And thus there is no documentary proof of the accident site, mode of injury etc., with the police or the doctors.

Similarly the recordings of medicolegal injuries carry no definite pattern. In many hospitals these records are illmaintained on account of lack of facilities available. X-rays do not carry with it any evidence of the name, age, sex, date time, side (right or left), address, thumb impressions or identification marks etc., by which one could ascertain the genuineness of the documents.

Observation

To avoid the problem of space and preservation of voluminous records in the present day, it is suggested that, it can best stored with computer in discs, photofilms. The photographic records of the accident site and the injuries sustained by the victim must be an essential part of the FIR and recording of medicolegal injuries.

Investigative facilities

Many of the hospitals don't have even basic investigative facilities for the management of the injured. The medicolegal injuries furthermore require certain investigations for the legal records of the extent of damages done for which many a times special investigations are required such as done scans, CT scan, tomograms, arteriograms etc., which as a rule is not possible even at Institutional level. The management of the patient under these circumstances may lead to an undesirable consequence.

Treatment facilities

The doctors at large are confronted with large number of obstacles in the way of treatment which influence to a great extent the outcome. These are as following :

- (a) **General :** Cleanliness of the hospital environment, large number of crowd accompanying the patient other than the kith & kin, luggage (cooking agents such as fire wood, kerosene etc, edible raw material etc, bedding) of the attendants, attendants using the same bed as that of patient for sitting and even sleeping, smoking and spitting, illmaintained toilets, illumination of wards and bed side and many such other inadequacies.
- (b) Non-availability of proper stretchers, trolleys, wheelchairs for the transportation of the patients. There is no provision to protect the patient from extreme weather conditions. Bed linen, mattresses are poorly maintained. There is no provision to bed side suction, oxygen and other resuscitative measures. There is no provision for intensive care for serious patients.
- (c) The nursing care is not adequate due to lack of their number, adequate training and their personal comforts.
- (d) There is no provision in the hospital for the supply of drugs, dressing materials etc., Even there is no provision for the emergency drugs and instruments for the bed side emergency treatment. The operation theatres are illequipped in every respect. There is no facility for the observation of the patients immediately following the operation within the operation theatre premises.
- (e) **Blood bank :** It is better to talk the least about it because knowing fully well the risks of life with blood banks where blood is sold without any proper check. Besides the condition

of the hospital based blood banks are even worse. Attendant accompanying the patient agree with great persuasion for the voluntary donation. There are no screening facilities for the donors. There is no provision for the maintenance of the continuous power supply. Its failure leads to storage problems.

- (f) Medicolegal injuries of the extremities carry the last priority over other emergencies. Since there is facility for only one operation theatre catering to the needs of all the emergencies the treatment is by and large greatly delayed.

Post Martem :

Many a times the doctors are not aware of legal involvement of the injured as it is concealed by the attendants so that the treatment of the victim could get priority. However, if the patient dies, the doctor innocently issues the death certificate. It is, therefore, mandatory for every district hospital and institution to have a police cell for looking after all these problems. Every injured victim of road traffic accident be registered by the police and a track should be maintained both by the doctor and the police for the necessary postmortem at an earliest opportunity. The postmortem is greatly delayed in most cases due to various reasons. Thus the crucial time is lost for the examinations of the pathological specimens.

Besides there is no provision for the toxicology and improved medicolegal laboratories at most hospitals. There is no provision for the dead bodies pending postmortem in a proper way. The dead bodies of the medicolegal cases are carried through streets in a most indignant way.

Prevention of Accidents :

Large number of medicolegal injuries are preventable such as road traffic accidents, industrial accidents etc., proper lightening of the roads, its maintenance, proper display of road signs for turnings, bumpers, speed breakers, railway lines, schools etc., traffic signals, posting and availability of traffic police at all important crossings, checking the speed of vehicles, regular check of vehicles itself for proper maintenance, emergency and inspection police squads for these purposes, introduction of a scheme for training of police, care for medicolegal accidents, education of the population regarding traffic discipline etc., are some of the measures which can prevent major/minor road traffic accidents. Similar preventable measures can be drawn in other medicolegal injuries as well.

Conclusion

Medicolegal injuries as a result of accidents of various kinds are due to the lack of discipline, education or checks at various level. Large number of these accidents can be prevented if suitable measures are taken at various levels by different organisations. Once the accident has occurred, various services legal, medical, insurance etc., can be better implemented if the whole system is properly streamlined. The medical services, in particular of the victims is greatly affected an account of various factors which in return affect the outcome of the services rendered. As a result, the patient may lose his life or limb or get permanently crippled. Improvement in the working conditions of all the hospitals, establishment of Police cell, photographic facilities of accident site and the victims, quick disposal of legal formalities and an early evacuation of the injured can only improve the services to the injured victim.

The law would be an asset for the medical fraternity if it could get an indepth study of these cases to bring out the pitfalls, the persons responsible in the care of the injured and suggest improvements to various organisations and governments bodies. The one-sided law to point out the negligence and award of punishment would be detrimental to the progress of the science. However, negligence should be pointed out at all levels and be punished suitably.

Reference

- Agarwal a (1988) Management of skeletal injuries in Polytrauma. Thesis submitted for M. S. (Orthopaedics) at Banaras Hindu University.

LEGAL AND ETHICAL IMPLICATIONS OF THERAPEUTIC TRIALS WITH SPECIAL REFERENCE TO AYURVEDIC DRUGS AND REMEDIES

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The therapeutic trial in human subjects has been the most important method of evaluation of the efficacy of medicaments from the very beginning. The actual therapeutic effect and the associated side effects can be known only when a test drug is administered in human volunteers and patients suffering from a given disease. No animal experiments and laboratory study can help by passing human trials. With the growing dimensions of health and disease, requiring an evergrowing range of drugs, there is an equally rapid increase in human experiments. The human experiments are involved not only in therapeutic trials but also in many other kinds of non-therapeutic studies like epidemiological investigations, physiological studies and diagnostic procedures. In Indian context one of the reasons of rapid increase in the number of therapeutic trials in recent years is the growing interest in the evaluation of indigenous drugs and plant products.

It has been off and on thought whether the use of human volunteers and patients is ethical. There is general unanimity on the understanding that there is a need of adequate guarantee against the risks to the man undergoing such a trial including its untoward effects. Everybody agrees that a test drug should be subjected to clinical pharmacology and therapeutic trial only when the efficacy and safety of the trial drug has been insured through animal-experiments and laboratory studies. Arguments are put forward that all therapeutic trials are done in larger interest of the mankind and for the welfare of thousands of future patients, similar to the one who undergoes the trial during drug development and hence even if the trial patient suffers from some minor injuries, with therapeutic trials, if otherwise planned appropriately should not be considered an unethical act. However, the question of safety of the patients or volunteers undergoing a research trial cannot be questioned. In view

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of the increasing research being carried out on human subjects and the ever widening complexities of medical researches, the Indian Council of Medical Research (ICMR) made a policy statement on ethical considerations involved in research on human subjects as back as 1980 with following broad declarations :

1. That the rights and welfare of human subjects on whom experiments are carried out are adequately protected.
2. That the risks to an individual are outweighed by potential benefits to him or to society or by the importance of the knowledge to be gained.
3. That informed consent is obtained from the individual by methods that are appropriate and adequate.
4. That the clinical investigation on human subjects is carried out by an investigator who has the requisite background and competence to carry out such research.
5. That the investigator has a framework for obtaining advice, support and assistance from his peers before embarking on a particular clinical research programme.

It was envisaged by ICMR through this policy statement that the Research Council and its Ethical Committee would guide the clinical researchers to plan their work in accordance with the principles brought out in 'World Medical Association Declaration' of 1964 as modified by 29th 'World Medical Assembly' in 1975. In this context the ICMR insisted that every institution conducting medical research should have a powerful ethical committee to examine and approve of all such projects and proposals where human volunteers or patients are expected to participate.

The above said policies are used with due respect but in India the policies have been accepted very lightly. So far as the therapeutic trial of newly developed chemical drugs and invasive experiments are concerned, it is quite necessary to implement the ethical regulations while conducting human studies. However so far as the clinical trial of Ayurvedic drugs and crude plant products are concerned, the therapeutic trials may be exempted from the rigorous of ethical considerations as enunciated by ICMR as above. Because most of the Ayurvedic drugs and plants which are being taken for therapeutic trial are not new drugs. These drugs are already in use in clinical practice by medical practitioners of this country for thousands of years. Their efficacy and

safety is already established and ordinarily there is no risk involved in the use of such products. The question arises that if these drugs are already established therapeutic agents then why they are being subjected to a trial at all? As a matter of fact some Ayurvedic drugs and plant products are being taken up for therapeutic trials in different indications in present time as a revival programme. Another purpose of such trials is to evaluate the utility of these remedies in patients diagnosed in terms of the present day terminology for the purpose of documentation and medical certification for their use in patients as diagnosed today. At this juncture, it is necessary to point out that the Ayurvedic diagnostics, their approach and fundamental understanding are different than the one which are used in Western Modern Medicine. Therefore, there is a need to establish correlations between Ayurvedic Medicine and Western Modern Medicine so that the drug and medicaments described for the treatment of a particular disease may be utilized for the treatment of a parallel clinical entity of Western Modern Medicine comparable with that of Ayurveda. For this first probable correlates are developed and the necessary therapeutic trials are launched. Thus, it is submitted the drugs which is taken up for trial is already a drug and hence there is no need of any legal or ethical restrictions.

It is in view of this fact that ICMR in policy statement of 1980 suggested that, "For clinical evaluation of plants being utilized for therapeutic purposes, assessment of treatments being used in the traditional systems of medicine, the protocol for such clinical research should again be approved by the Ethical Committee of the institute. There is no need for clearance to be obtained from the Drugs Controller of India for such trials of products already in wide spread use in the traditional system of Medicine today in this Country". The authors of the present paper would like to make certain additions to this policy statement of the Council. Firstly, this exemption should not be limited only to plants but should also be extended to all single or compound drugs, both herbal or mineral, if they have been in traditional use. If a new chemical drug is produced in the form of a chemical active principle from a plant, then it should be considered a new drug and should be studied and marketed after evaluation on all such parameters which may be needed for evaluation of a new drug. It should follow the necessary ethical and legal implications for this purpose.

It will not be out of place to mention that Ayurveda is one of the most Ancient Medical and Life Sciences of the world. It seems that Ayurveda was a highly developed scientific discipline developed after rigorous testing and experimentation following the standard methods of

scientific testing such as Pratyakṣa, Anumāna, Āptopdeśa and Yukti Pramāṇa. These Pramāṇas even today continue to be the actual modes of knowing truth. This rigorous scientific testing was super added with intuitive knowledge.

This ancient system of medicine has its own basic principles of life, health and disease and it developed its own diagnostic and therapeutic procedures which flourished in India for centuries. The remnants of this great science is being practised even today. Attempts are being made to revive this discipline in its full form so that it can be developed as an alternative system of medicine to meet the newer challenges of medical profession today. This system of Medicine is an officially recognised system of medicine in India and also certain neighbouring South East Asian Countries. There is a great demand of this kind of treatment even in the Developed Western Countries. Hence there is a need of rapid consolidation and scientific systematization of Ayurvedic Medicine to make it acceptable to the modern world. All this involves scientific studies and rapid therapeutic trials and hence the question of legal and ethical implications are being brought for discussion in the context of therapeutic trials of Ayurvedic drugs and remedies.

References

- R. B. Arora, Four Decades of Experimental and Clinical Research on Development of Drugs from Medicinal Plants : Personal Reminiscences. *Jour. Res. Edu. Indian Med.* (April, June 1990) IX.
- P. V. Sharma (ed.), *Caraka Samhita* (Chaukhamba Orientalia, New Delhi).
- Policy Statement of Ethical Considerations Involved in Research on Human Subjects *I. C. M. R.* (1980).
- K. N. Udupa and R. H. Singh, *Science and Philosophy of Indian Medicine*. (Baidyanath Ayurveda Bhavana Nagpur, 1990).

BOOK REVIEW

JURISPRUDENCE AND LEGAL THEORY, by P. S. Atchuthen Pillai,
Revised Third edition. Lucknow : Eastern Book Company, 1986, pp.
xvi + 341 Price Rs. 25 00.

Generally speaking, most of the Indian text-book publicists on jurisprudence have preferred the title of their works as *Jurisprudence and Legal Theory* or *Jurisprudence (Legal Theory)*. Though jurisprudence and legal theory are considered the same, but there is difference between them. While legal theory is concerned with the general principles involved in the branches of positive law, jurisprudence deals with the more universal concepts inherent in legal theory. It attempts an investigation into the ultimate conception in terms of which all legal knowledge can be adequately accommodated. Thus, jurisprudence is the name given to a specific inquiry of abstract and theoretical nature "which seeks to lay bare the fundamental principles of law and legal systems". It involves a study of the merit and demerit of codification, the significance of a strict system of judicial precedent, the process of judicial reasoning and determination of the *ratio decidendi* of a case. The way law is created and enforced, the manner in which it exists and functions in the society all are the subjects of jurisprudence. To add further, the influence of social opinion on law and that of law on social opinion, the effectiveness of law and the part played by sanctions are also the chief concern of the subject. If jurisprudence is to be viewed from the perspective of the philosophy of law or the science of law, the difference becomes apparent in the use of the "ought" and "is" propositions. It is said that jurisprudence, as the philosophy of law, is concerned with what the law ought to be (purely normative in character). It is also true, at the same time, that jurisprudence, as a science of law, is concerned with what the law is (purely physical reality). Though there is difference between "ought" and "is", this does not lead to conclusion that "ought" statements have a special world of existence quite distinct from physical reality. The fact is that jurisprudence, either as a science or philosophy of law, is a legitimate field of study and inquiry.

The shape and the sense in which jurisprudence is understood in the present century is essentially a contribution of the western world. It had come to mean in England almost exclusively the analysis of the formal structure of law and its underlying concepts; but in modern times,

jurisprudence envisaged a much wider sense. The new factors, great expansion in commerce, industry and agriculture, the rise and growth of mental and physical science, the changing perception about political science, administration and government and many other areas of socio-economic development need apparently a new jurisprudence. In the present world today, many conditions of past days are not good for the evolution and growth of legal order in a society, and particularly in the third world countries where there are immense problems of hunger, poverty, unemployment, population, health, education and technology. If Roman jurisprudence was not conducive for the rise and growth of the commercial and industrial expansion of England, it requires some effort to examine how far the European or American jurisprudence can be adequate to meet the pressing needs of the developing nations in Asia, Africa, and Latin America. The need, therefore, of a new jurisprudence to meet the menacing challenge is self-evident. However, the breadth of the modern attitude is well summed up by Professor Julius Stone, in his description of jurisprudence as *the lawyer's extraversion*. "It is the lawyer's examination of the precepts, ideals, and techniques of the law in the light derived from present knowledge in disciplines other than the law." Perhaps it may be expressed in this way that a study of jurisprudence is concerned with thought about law on the broadest possible frame. The book under review is the revised third edition of the author's work on "Jurisprudence and Legal Theory." Pillai has mentioned in its preface that the book is primarily meant for student community and that it is written with an intention to provide precise information to lawyers and students on the subject. Against this background, it is not too difficult a task to review the work of this kind while keeping in mind as to what extent the work can be considered a dependable text-book for the students of law at the bachelor and master levels of study. The book is broadly divided into three major Parts : I-Principles of Jurisprudence; II-Elements of Jurisprudence; and III-Legal Theories. While the first two Parts include 32 chapters, the third Part is sub-divided into 9 chapters; thus the subject has been discussed in altogether 41 chapters and 2 appendices.

Chapter I, which is an introduction of the book, addresses two themes : the meanings of jurisprudence, as well as the divisions and scope of jurisprudence. Pillai has discussed the meaning of jurisprudence in wider and limited sense alongwith a brief comment on the meaning of law; however, he has not entered into the lively discussion relating to the problem of jurisprudence as a science and philosophy of law, nor has dealt with the difference between legal theory and jurisprudence. His discussion about the various divisions of jurisprudence is based on

Keeton's work on "Elementary Principles of Jurisprudence." Pillai seems to have agreed with Keeton in classifying the subject from the standpoint of time, orbit and number of legal systems, and the virtue of law. However, it can be easily noticed that he has not dealt with the various definitions of jurisprudence as given by Sir Thomas Erskine Holland i.e., 'formal science of positive law', or by John Salmond i.e., "science of the first principle of civil law". Jeremy Bentham was the first jurist to have divided jurisprudence into "expositorial" and "ceusorial" and had thus supported the later's cause; whereas "expositorial" theme got support by John Austin, who sub-divided this jurisprudence into two parts general and particular. If Holland stood for "general" jurisprudence, the cause of specific or "particular" jurisprudence was supported by Salmond. In the course of explaining his definition of jurisprudence that it is a "science of the first principle of civil law", Solmond had further divided jurisprudence into three branches, namely the analytical, historical and ethical. Solmond has, at one place, made it clear how did this classification correspond to the *present, past and future* of law (based on time), he has also analyzed, at the other place, the tripartite division in the following way : Analytical jurisprudence being the general or philosophical part of the systematic legal exposition; historical jurisprudence being the general or philosophical part of legal history; and ethical jurisprudence being the general or philosophical part of the science of legislation.

Pillai's exhaustive incorporation of the modern doctrine of prospective overruling in its chapter on "Precedent" deserves appreciation. His study about the rules of precedent in the House of Lords begins with Lord Halsbury's decision in *London Street Tramways Co. Ltd. v. London County Council*, 1898, and this study also takes note of the liberating chains of precedent by the Lord Chancellor Gardiner's announcement of 26 July 1966 (popularly known as the Practice Statement). However, the controversy in this connection as to why the decision in *Duncan v. Cammell, Laird*, 1942 should not govern in *Conway v. Rimmer* 1968 is important one and must have been dealt with in this chapter. So far the question that the Court of Appeal is bound by its own previous decision is concerned, Pillai has very well discussed *Yong v. Bristol Aeroplane Co.* 1944, but again he has failed to take notice of *Gallie v. Lee and another* 1969, where Lord Denning had stated that the Court of Appeal was not bound by its previous decision. It is important to point out that the House of Lords has condemned the two attempts by the Court of Appeal to modify its existing practice of following decisions of the House of Lord. The two attempts to escape from the fetters of the

House of Lords decisions were made in *Broome v. Cassell and Co. Ltd.* 1971 and *Miliangos v. George Frank (Textile) Ltd.* 1975. Reference of these two cases have not found any place in this chapter.

While the treatment of other chapters in this book is good, some chapters dealing with "Questions of Fact and Law" (pp. 34-37), "The territorial Nature of Law" (pp. 38-40), "Law and Equity" (pp. 41-42), "Sources of Law" (pp. 76-77), and "Professional Opinion" (pp. 113-117) have been written so briefly that they hardly deserve any attention. In fact, the book under review might have been better without the above-mentioned five small chapters. Despite these shortcomings, this is a good text-book for the students of LL. B. Pillai has incorporated interesting and valuable study on "Legal Values of Modern Democracy" and "Law, Justice and Social Morality", which reflects new insight in the jurisprudential discussion. The central contribution of this work lies in its treatment of the subject much different from the approaches of other text book publicists in India. It is written in a very clear and simple language that makes it eminently readable. The book is handy and has a beautiful get-up. The printing is excellent and the publisher has brought out this book at a moderate price.

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RESTITUTION IN PUBLIC AND PRIVATE LAW, By Gareth Jones, N. M. Tripathi, Sweet and Maxwell, 1991, pp. xi, 172, Price Rs. 80.00

The book under review consists of M. K. Nambyar Memorial lectures on "Restitution in Public and Private Law" by Professor Gareth Jones delivered at the National Law School of India University, Bangalore which are clear, forcible and inspiring in the most complicated as well as ignored and neglected area of law. Obviously, the subject is important in principle,¹ and, hence, probing. Professor Jones has to be admired for clarity of expression and exposition of the interstices of the subject, and as such one does not feel hesitation in saying that it is one of illuminating treatise of its kind. The four lectures, besides an introduction, which is the main portion of the book under review are given in a very simple as well as beautiful style, and give a module—map on the subject. Hence, one is tempted to recall Adrienne Rich while reviewing this book: "I promised to show you a map you say but this is a mural then yes let it be these are small distinctions where do we see it from is the question."²

Professor Jones insights in the subject are reflective when he examines the status of restitutionary claims against wrong doers generally and against public authorities in particular.³ Restitution is one of the significant remedy available in public law, and unequivocally of inquisitive in Administrative Law. This area does require further attention when an individual makes a restitutionary claim against public body for the return of money that he has paid over to a public body rather than damages. Such restitutionary claims present a strong case for relief. But unfortunately this area has remained as the most touch-me-not by the scholars of Administrative Law except minor and tiny jottings by a few.⁴

Restitution can be claimed as a legal remedy when public authorities cause loss to individuals by their acts or omissions. In a way, this remedy of private law (Tort) has to be extended in the arena of public law. The acts of omission or commission or mistake tend to interpreting the rule

1. See P. P. Craig, *Administrative Law* p. 443 *et. al.*

3. Adrienne Rich, Here is a map of our country, in *Cornell R. Rev.* (77) 1992, at 1233.

3. p. x.

4. See Generally, P. P. Craig, *Administrative Law*, p. 443 *et. al.*; P. P. Craig, *op. cit.* J. and see Commentaries by Indian scholars on Art 265 of the Indian Constitution (D. D. Bean, M. P. Jain, V. N. Shukla (Ed. by H. P. Singh) on this perspective.

against unjust enrichment. As a general principle a public authority/body when acts *ultra vires* the well *eat rax* is liable in tort if a cause of action is established, just like any private individual would be.⁵

In Chapter 1 "Restitutionary Claims against public authorities : A Comparative Study"⁶ the scholar examines in depth the intricacies of the foundation questions : "Whether a tax payer can recover a payment paid under mistake which a public authority had no right to demand." ? The author has endeavoured to tackle the "uncertainties in this complex body of law" with utmost care by referring to provisions of law and catena of case law both English as well as Indian. There are some fundamental issues interwoven, viz. whether public authorities should be treated differently from private individuals; should a court be more or less ready to conclude that public authorities have been unjustly enriched at a taxpayer's expenses; should the same restitutionary principle which determine the success or failure of a claim against an individual determine the fate of a restitutionary claim against a public authority.⁷ There seems to be a "curious judicial ambivalence, "because" a concern to protect a taxpayer conflicts with a realisation of the financial implications of allowing this restitution claim which would expose a public authority to a multitude of claims from other taxpayers."⁸ Naturally, the restitutionary claims can be denied on the presumptive plea that if restitutionary claims are entertained and allowed that may result into the disruption of budget and, consequently, there may be much more compound deficits. The scholar concludes by drawing inference from the decisions of the Indian Supreme Court that "the public authority rarely defends the claim by relying on the defence of *fiscal chaos*."⁹ It seems that "this consideration (alone) persuaded the Supreme Court of India to overrule, but only prospectively, its previous decisions, upholding the validity of particular taxes."¹⁰

In Chapter 2 "Restitutionary Claims against Wrongdoers"¹¹ the author has discussed the niceties of restitutionary claims brought against wrongdoers—a wrongdoer may be a fiduciary who has abused his position

5. See generally P. P. Craig, "Compensation in Public Law" (1980) 96 L.Q.R. 413.

6. pp. 1-56.

7. *Id.* at 4.

8. *Id.* at 21.

9. *Id.* at 56.

10. *Ibid.*, see *Murphy v. Attorney General* (1982) 1 E.L.R. 241; *Synthetics and Chemicals Ltd. v. State of U. P.* 1990, 1 S.C.C. 109; *Indian Cement Ltd. v. State of Tamil Nadu*, 1990, 1 S.C.C. 12. 11 pp. 57-93.

11. *Id.* at 57-93.

of trust, a criminal who seeks to profit from his criminal activities, an infringer of intellectual property rights, a tortfeasor, and one who wrongfully repudiates a contract to which he is a party.

Chapter 3 "Restitution of Benefits Conferred under an Ineffective Contract"¹² focusses discussion on "ineffective contracts" which may be for more than one reason such as contracts *ab initio*, contracts wrongfully repudiated, contracts unenforceable, contracts illegal or discharged through frustration. In such cases there may be no action on the contract for damages, for loss suffered, or there may be preference to recover the value of the benefit conferred rather than damages for loss suffered. Author's approach to this subject matter has scholastically unfolded the knots of different principles embodied in different concepts.

The final Chapter entitled "Restitutionary Claims Arising from Necessitous Intervention"¹³ concentrates on the compulsion of a person who may act from necessity or compulsion for more than one reasons, a person may act under compulsion of law or moral compulsion, when he intervenes in an emergency to save the life or property of another. It is this latter compulsion where restitutionary claims are desirable. And, as such the author rightly says that not all compulsion is compulsion of law; legal compulsion will be *held* to exist only in two cases, viz. first, when a person who discharges under compulsion of law another's primary liability to a third party is entitled to claim restitution of the value of the benefit conferred; and secondly, an obligator who owes with another a duty to a third party and is liable with that other to that third party's *common demand* is able to claim contribution from that other if he satisfies more than his proper share of the common debt.

The book under review constitutes a discussion of the subject of values. The analysis of the subject, viz. restitutionary claims, is thoughtful and clear, the subject is of great importance to the present day legal pedagogy. A book to be earnestly recommended not only to those who are interested in the subject but to all who have the missionary cause at heart.

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12. *Id.* at 94-127.

13. *Id.* at 128-167.

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CONSTITUTION OF INDIA (4th Ed. 1987), By Murlidhar Chaturvedi, Allahabad Law Agency, Price Rs. 80/-

The book is perhaps the first book written Article-wise in Hindi and is a very commendable effort. Most of the other books in Hindi are topic wise. The book will therefore be helpful to both teachers and students. It is an accurate and well arranged commentary on the Constitution of India.

However, the reviewer would like to make some comments for the consideration of the publisher as well as the writer.

First about its language. The writer has tried to use Sanskritised words in the book. This has made the language difficult to understand at some places. Simple language will greatly increase the value of the book.

The writer has cited many recent cases. In his anxiety to write recent cases, some cases have crept in at places where they do not seem so relevant. On page 80 for example, whole of the para three is not relevant and has no connection with the topic discussed. On page 84 *K. T. Moopil Nair case* and *Pnthumba case* can be conveniently deleted. Similarly discussion under Art. 21 is very lengthy which can appreciably be reduced. The discussion is scattered. Some of the cases have been cited and discussed more than once, which has sometimes led to unnecessary repetition which word should be avoided. Similar is the position where the writer discusses Article 14.

Where the writer has discussed the Doctrine of Eclipse, he has mentioned referring to *Ambica Mills case* (p. 86-87) that this principle applies to pre-constitution as well as post-constitution laws. The Supreme Court has in fact never said so expressly. Through Seervai holds that the total effect of the decision is so not, P. K. Tripathi thinks it is not so. Therefore the point is debateable. The writer does not discuss these contentions and holds no particular opinion.

In the place where the writer discusses the Public Interest Litigation (p. 280-282), he should have discussed in detail the principle laid down by the Supreme Court on this jurisdiction in *S. P. Gupta case*. That was perhaps the first case where the Supreme Court elaborated upon this aspect though the process started much earlier. He has not even referred to these cases. Given the importance of this topic, it should be discussed in detail. The writer has no doubt mentioned *People's Union and Bandhuwa Mukti Morcha cases*.

One of the glaring weaknesses of the book is insufficient discussion on the Directive Principles of State Policy. There is no need to stress that they form an important part of the Constitution. The writer does not discuss in detail their place in the Constitution, their importance, their utility, their relationship with the fundamental rights, etc.

Another omission is where the writer discusses the Ordinance-making power of the Governor (p. 450). He has not mentioned *D. C. Wadwa v. State of Bihar* where the Governor's powers with regard to the issuance of the Ordinance has been scrutinised by the Court

The book, however, is very useful. But it requires some editing. Had the volume of the book profitably reduced, it would have brought down the price which seems prohibitive at the moment. The writer has, however, done very commendable work and has rendered great service to the cause of Hindi in the field of law in general and the constitution law in particular. This book will be useful to all those who are important in the Constitutional law, in Hindi.

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LAW OF EVIDENCE by Vepa P. Sarathi, (Fourth Edition) 1989, Eastern Book Company, Lucknow.

The book is intended for the students of law and practising advocates. It is valuable and instructive for the matters it contains. The author has collected together in a convenient form a very large amount of useful materials. The book is obviously the result of great dedication and hard labour.

The introduction of the book contained in Chapter 1 is very useful as it deals with the question of why one should learn law of evidence, the law of evidence in deciding civil or criminal cases, the matters with which this law deals with and the history of the law of evidence. After a useful introduction, Chapter 2 of the book deals with the theory of relevancy, explaining what is evidence and the different senses in which the word evidence is used, the concept of best evidence, the corroborative evidence, different kinds of evidence. It also deals with the definitions of the word court, fact in issue and relevant fact. Relevant facts of which evidence may be given provided in sections 6 to 55 has been discussed in Chapter 3. It has dealt with, for example, *res gestae*, admissions, confessions, dying declaration, statements made in special circumstances, relevancy of judgments, relevancy of opinions and relevancy of character. Chapter 4 has focussed attention on facts of which evidence need not be given, that is the facts of which courts take judicial notice and the facts admitted by the parties or their agents. Chapter 5 has been devoted to the facts of which evidence cannot be given and has discussed the principle and kinds of estoppel. Burden of proof finds place in Chapter 6 which has discussed its meaning, aspects, rules including the specific rules of burden of proof. Chapter 7 has explained the questions regarding witness, for example, the competency of witnesses, their examination and cross-examination, privileged communications, when a party cross-examines his own witness, situations when a witness may refresh his memory by referring to notes and the powers of the judge with respect to the production and examination of witnesses. Public and private documents and the modes of their proof is the subject matter of Chapter 8. Documentary evidence excludes the oral evidence, and when oral evidence may be given to explain the ambiguities of the documents has been explained in Chapter 9. Chapter 10 deals with the different general rules laid down in the Act to weigh the evidence. Chapter 11 has discussed the power of an appellate court in regard to the examination of evidence to see whether the verdict pronounced by the lower court is justified or results into failure of justice.

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The book has practically covered every topic and one is astonished at the number of cases of Supreme Court, various High Court and Privy Council referred by the author. The author has extensively made use of the quotations from the judgments to elucidate the law. A detailed contents, table of cases, table of Statutes and an elaborate subject index are also given in the book. It has also the text of Indian Evidence Act. Some topics, for example, the definition of the word, 'proved', 'disproved' 'not proved' and document, and the topic of admission where-in sections 18 to 23 and documentary evidence should have been elaborately discussed.

The author has succeeded in achieving his goal by making the book easily accessible to all the intended by using the simple and clear language and by keeping its size to resonable number of pages. The book will be of considerable value to students and practising lawyers in understanding this difficult subject.

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CIVIL PROCEDURE by C. K. Takwani, (Second Edition) 1987, Eastern Book Company, Lucknow.

Mr. C. K. Takwani's book is one of the numerous publications on the subject. The work is intended for the students of law and junior advocates rather than for the professional jurists. It fulfils admirably the intention of the author. It is a useful work, because it tells the law students what they ought to know about the procedural law.

The book is divided into five parts. The first part deals with preliminary aspect and has discussed the important definitions. The second part is devoted to the trial of the suit and includes the rules relating to its various steps e.g. the parties to the suit, the place and the court where the suit may be filed, pleadings, framing of issues, appearance and attendance of parties, hearing of the suits, res-judicata and res-sub-judice, interim orders, withdrawal and compromise of the suits, judgment and decree. It has also dealt with the process and procedure of filing suits in particular cases, for example, suits by or against the Government or public officer, suits involving substantial question of law, suits by or against foreign rulers, suits by or against soldiers, sailors or airmen, suits by or against firms, suits by or against trustees, executors and administrators, suits by or against minors, suits by or against indigent persons, interpleader suits, suits relating to public nuisance, public charities etc. The rules relating to appeal, reference, review and revision and also the second appeals and appeals to the Supreme Court find place in Part III. The rules relating to the execution of decree have been explained in part IV. The miscellaneous provisions relating to transfer of cases, restitution, caveat, inherent powers of the courts and delay in civil litigation, have been examined in Part V of the book. It has appendices from A to G containing the models of plaint, written statement, first appeal, second appeal, revision application, injunction application and affidavit. A detailed contents, an elaborate subject index and table of cases are also given in the book. The author has referred extensively to the decisions of the various High Courts and the Supreme Court.

A few minor shortcomings must be mentioned. Some topics have been summarily dealt with. For example, the essential conditions of the principle of res-sub-judice have not been elaborately discussed though they have been narrated. Similarly, Chapter 13 dealing with death, marriage and insolvency, and Chapter 16, dealing with suits in particular cases, should have been given more space for their satisfactory elaboration. Some topics have not been suitably arranged, for example, Order 3 and Order 5 find place with plaint and written statement. Some

omissions have also been noticed e.g. there is no mention of the verification of the plaint or written statement, the models of plaint and written statement do not mention about the date and place of verification and similarly there is no mention of admission and denial of each paragraph of plaints and the additional pleas in the written statement model. The model of affidavit also seems to suffer from some omission.

However, despite these, the book will prove useful for the students of law to grasp the fundamentals and principles of this complicated and dry subject.

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LAW AND MEDICINE

(A Select Bibliography)

B. P. AGRAWAL AND A. R. CHATURVEDI*

Break-up

- I. General
- II. Legal Aspects of New Means of Reproductive Technologies, Surrogate Parenthood and Sex Alteration.
- III. Legal Aspects of Genetic Engineering, Cloning and Organ Transplantation.
- IV. Legal Regulation of Therapeutic and Non-Therapeutic Experiments.
- V. Law and Medical Negligence.

I. GENERAL

Books

- British Medical Association : *Handbook of Medical ethics*. London, The Assoc., 1981.
- Dix, Erington, Nicholson and Powe : *Law for the Medical Profession*. Sydeny, Butterworths, 1988.
- Freeman, M.D.A. (ed) : *Medicine, ethics and the Law*. London, Sweet and Maxwell, 1988.
- Hiller, Marc D. : *Medical ethics and the Law; implications for public policy*. Cambridge, Mass., Ballinger, 1981.
- Jayasuriya, D. C. : *Current medico-legal problems : A Comparative analysis*. New Delhi, Sterling, 1984.
- McLean, Sheila : *Medical Law*. U. K., Dartmouth, 1990.
- Mason, J. K. and Smith, R. A. McCall : *Law of medical ethics*. London, Butterworths, 1987.
- Sharpe, Gilbert : *The Law and medicine*. Toronto, Butterworths, 1987.
- Skegg, P. D. G : *Law, ethics and medicine; studies in medical law*. London, Clarendon Pr., 1984.

Articles

- Asch, S. H. : Medicine in transition and the legal profession. *Record of the Association of the Bar of the City of New York*. V. 24, 1969, p. 161.

* B. Sc., LL. M., Ph. D. (B.H.U.) Reader in Law, Banaras Hindu University, Varanasi.

* Law School Library, Banaras Hindu University, Varanasi.

Bakshi, P. M. : Medicine, Law and Society. *Indian Judicial Reports*. V. 14, 1987, p. 719.

Castel, T. G. : Legal implications of bio-medical science and technology in the Twenty-first century. *Canadian Bar Review*. V. 51, 1973, p. 119.

Current Medico-legal problems : Symposium. *Tennessee Law Review*. V. 29, 1962, p. 153.

Jacob, Joe : Biomedical Law; lost horizons regained. *Modern Law Review*, V. 46, 1983, p. 21.

Law and Medicine; a symposium. *Journal of Public Law*. V. 3, 1954, p. 292.

Law and medicine; roundtable. *Journal of Legal Education*. V. 20, 1968, p. 587.

Matte, P. J. : Law, morals and medicine; a method of approach to current problems. *Journal of Forensic Science*. V. 13, 1968, p. 318.

Moral, medicine and the Law; a symposium. *New York University Law Review*. V. 31, 1956, p. 115.

Ormrod, R. : A Lawyer looks at medical ethics. *Medico-Law Journal*. V. 46, 1978, p. 18.

Pheasant, H. C. : Law and medicine. *Los Angeles Bar Bulletin*. V. 34, 1959, p. 333.

Smith, H. W. : Integration of Law and medicine. *Syracuse Law Review*. V. 14, 1968, p. 550.

II. LEGAL ASPECTS OF NEW MEANS OF REPRODUCTIVE TECHNOLOGIES, SURROGATE PARENTHOOD AND SEX ALTERATION :

Books

Cusine, Douglas J. : *New reproducing techniques : a legal perspective (Medico-legal issues series)*. U. K. Gower Pul., 1988.

Field, Martha A. : *Surrogate motherhood*. London, Harvard University Press, 1988.

Finlay, H. A. and Walters, William A. W. : *Sex change*, 1988.

Melein, Sheila (ed.) : *Law reform and human reproduction*. U. K. Dartmouth, 1990.

Mclein, Sheila (ed.) : *Legal issues in human reproduction*. U. K. Dartmouth, 1988.

Mason, J. K. : *Medico-legal aspects of reproduction and parenthood*. U. K., Dartmouth, 1989.

Morgan, Derek : *Surrogacy and the moral economy*. U. K., Dartmouth, 1989.

Stanworth, Michelle (ed.) : *Reproductive technology : Gender, motherhood and medicine*. Minneapolis, University of Minnesota Pr., 1987.

Articles

Alder, E. M. et al : Attitudes of women of reproductive age to in vitro fertilization and embryo research. *Journal of Bio-Social Science*, V. 18, 1986, p. 155.

Annas and Elias : In vitro fertilization and embryo transfer; Medico-legal aspects of a new technique to create a family. *Family Law Quarterly*. V. 17, 1983, p. 199.

Artificial insemination. *Notra Dame Lawyer*, V. 43, 1968, p. 715.

Artificial insemination; a symposium. *University of Detroit Law Journal*, V. 33, 1957, p. 135 and V. 34, 1958, p. 383.

Artificial insemination and the law. *University of Illinois Law Forum* 1968, p. 283.

Artificial insemination; legal and related problems. *University of Florida Law Review*. V. 8, 1955, p. 304.

Artificial insemination; problem child of the law. *North Dakota Law Review*. V. 40, 1964, p. 89.

Artificial insemination; status and property rights. *Law Times*. V. 69, 1958, p. 225.

Artificial insemination; the Law's illegitimate child. *Villanova Law Review*. V. 9, 1963, p. 77.

Artificial insemination; upon whom shall the duty to support rest ? *De Paul Law Review*. V. 17, 1968, p. 575.

Balasubrahmanyam, Vimal : And now, made-to-order babies. *Economic and Political Weekly*. V. 21, 1986, p. 1402.

Balasubrahmanyam, Vimal : Women's world Hands of maternity rights. *Mainstream*. V. 25, 1986-87, p. 21.

Banerjee, P. N. and Nirmal, B. C. : The Technology of fertility Control and legal response in India. *Law Quarterly*, V. 18, 1981, p. 5.

Barrat, C. L. et al. : Screening donors for sexually transmitted disease in donor insemination clinics in the U. K., a survey. *British Journal obstetrics and Gynaecology*. V. 96, 1989, p. 461.

Bartholomew, W. G. : Legal implications of artificial insemination. *Modern Law Review*. V. 21, 1958, p. 236.

Bolton, V. N. et al. : An evaluation of semen analysis and in-vitro tests of sperm function in the prediction of the outcome of intra-uterine AIH. *Human Reproduction*. V. 4, 1989, p. 674.

Condie, Karan T. : Surrogacy as a treatment for infertility. *Journal of Law Society of Scotland*. V. 31, 1986, p. 469.

- Dickens, Bernard M. : Artificial reproduction and child custody. *Canadian Bar Review*. V. 66, 1987, p. 49.
- Dienes, C. T. : Artificial donor insemination; perspectives on legal and social change. *Iowa Law Review* V. 54, 1968, p. 253.
- Domestic relations—Heterologous artificial insemination, with or without the consent of the husband, constitutes adultery on the part of the mother, and child so conceived is illegitimate. *Georgetown Law Journal*. V. 43, 1955, p. 517.
- Dudani, A. T. : Parliament's (Non) response to female foeticide. *The Lawyers Collective*. V. 1, 1986, p. 3.
- Family Law : legitimacy of child conceived by artificial insemination. *New York University Law Review*. V. 33, 1955, p. 1016.
- Fortin, Jane E. S. : Legal protection for the unborn child. *Modern Law Review*. V. 51, 1988, p. 54.
- Grover, Anand : Amniocentesis or female foeticide. *The Lawyers Collective*. V. 1, 1986, p. 3.
- Guttmacher, A. F. : Artificial insemination. *De Paul Law Review*. V. 18, 1969, p. 566.
- Hennessy, K. R. M. : Artificial insemination. *Canadian Bar Journal*. V. 10, 1967, p. 514.
- Hill, I. R. : Liability and in vitro fertilization. *Medicine, Science and the Law*. V. 25, 1985, p. 270.
- Hogge, W. A. : The Role of ultrasonography and amniocentesis in the evaluation of pregnancies at risk for neural tube defects. *American Journal of Obstetrics and Gynaecology*. V. 16, 1989, p. 520.
- Holloway, A. D. : Artificial insemination : an examination of the legal aspects. *American Bar Association Journal*. V. 43, 1957, p. 1089.
- Jacqueline, a priest : Assisted reproduction; developments in England. *International and Comparative Law Quarterly*. V. 37, 1988, p. 535.
- Jacqueline, a priest : The report of the Warnock Committee on human fertilization and embryology. *Modern Law Review*. V. 48, 1985, p. 73.
- Jalbert, P. et al. : Genetic aspects of artificial insemination with donor semen; the French CECOS Federation guidelines. *American Journal of Medical Genetics*. V. 33, 1989, p. 269.
- Kasimba, Pascal : Experiments in embryos; permissions and prohibitions under the Infertility (Medical procedures) Act, 1984 (Victoria). *Australian Law Journal*. V. 60, 1986, p. 675.

- Khan, Ateeque : Artificial insemination and surrogate parenthood; an Indian socio-legal perspective. *Journal of the Indian Law Institute*. V. 31, 1989, p. 394.
- Kusum : Legal implications of sex change surgery. *Journal of the Indian Law Institute*. V. 25, 1983, p. 73.
- Legal implications of artificial insemination. *Law Society Gazette*. V. 56, 1959, p. 529.
- Legal implications of test-tube babies. *South Carolina Law Quarterly*. V. 9, 1957, p. 232.
- Legal status of artificial insemination; a need for policy formulation. *Drake Law Review*. V. 19, 1970, p. 409.
- Legislative approach to artificial insemination. *Cornell Law Review*. V. 53, 1968, p. 497.
- Levisohn, A. A. : Dilemma in parenthood; socio-legal aspects of human artificial insemination. *Chicago-Kent Law Review*. V. 36, 1959, p. 217.
- Lombard, T. F. : Artificial insemination; civil law and ecclesiastical views. *Suffolk University Law Review*. V. 2, 1968, p. 13.
- Novak, T. : Another comment on the present state of artificial insemination and some of its consequences. *Ceskoslovenska Gynekologie*. V. 54, 1989, p. 216.
- Nullity-Artificial insemination. *Modern Law Review*. V. 12, 1949, p. 384.
- Padilla, S. L. et al. : Effect of maternal age and number of in vitro fertilization procedures on pregnancy outcome. *Fertility and Sterility*. V. 52, 1989, p. 270.
- Pai : 99% Come only for sex determination. *The Lawyers Collective*. V. 1, 1986, p. 5.
- Phatnani, P. : What is amniocentesis. *The Lawyers Collective*. V. 1, 1986, p. 4.
- Pollard, R. S. W. : Report of the Departmental Committee on human artificial insemination. *Modern Law Review*. V. 24, 1961, p. 158.
- Protecting the unborn. (Editorial). *South African Medical Journal*. V. 68, 1985, p. 908.
- Punekar, S. D. : Legal status of the test-tube babies in Hindu Muslim societies in India. *Gujarat Law Reporter*. V. 6, 1986, p. 12.
- Reproduction technology and procreation right of the unmarried. *Harvard Law Review*. V. 98, 1984-85, p. 1004.
- Rethinking (M) otherhood; feminist theory and state regulation pregnancy. *Harvard Law Review*. V. 103, 1989-90, p. 1325.

- Richardson, I.L.M. : Artificial insemination. *Australian Law Journal*. V. 30, 1966, p. 125.
- Robertson, J. A. : Ethical and legal issues in human egg donation. *Fertility and Sterility*. V. 52, 1989, p. 353.
- Rooney, D. E. et al. : Early amniocentesis; a cytogenetic evaluation. *British Medical Journal*. V. 299, 1989, p. 25.
- Rudlow, K. : Legal aspects of artificial insemination. *Australian Law Journal*. V. 28, 1955, p. 490.
- Saha, Maitreyee : Technology and gender bias. *Mainstream*. V. 24, 1985-86, p. 27.
- Silva, P. D. : Intrauterine insemination of cryopreserved donor semen. *Fertility and Sterility*. V. 52, 1989, p. 243.
- Smith, G. P. : Australia's frozen orphan embryos; a medical legal and ethical dilemma. *Journal of Family Law*. V. 24, 1985-86, p. 27.
- Smith, G. P. II : Artificial insemination; no longer a quagmire. *Family Law Quarterly*. V. 3, 1969, p. 1.
- Smith, G. P. II : For unto us a child is born legally. *American Bar Association Journal*. V. 56, 1970, p. 143.
- Smith, G. P. II : Through a test-tube darkby; artificial insemination and the law. *Michigan Law Review*. V. 67, 1968, p. 127.
- Surrogate motherhood (Editorial). *Calcutta Weekly Notes*. V. 89, 1984-85, p. 59.
- Taitz, Jerold : The Legal consequences of a sex-change; a judicial dilemma. *South African Law Journal*. V. 97, 1980, p. 65.
- Test-tube euphoria. *Economic and Political Weekly*. V. 21, 1986, p. 1383.
- Tort law—Prenatal injuries—Supreme Court of Illinois refuses to recognise cause of action brought by fetus against its mother for unintentional infliction of prenatal injuries. (Case Comment.), *Harvard Law Review*. V. 103, 1989-1990, p. 873.
- Vetri, Dominicy : Reproduction technologies and United States law. *International and Comparative Law Quarterly*. V. 37, 1988, p. 505.

III. LEGAL ASPECTS OF GENETIC ENGINEERING, CLONING AND ORGAN TRANSPLANTATION :

Articles

- Allen, Garland : Genetics, eugenics and society : Internalists and externalists in contemporary history of science. *Social Studies of Science*. V. 6, 1976, p. 105.
- Barr, W. J. : Teaching patients with life-threatening illnesses; Cardiovascular disease, transplantation and organ donation. *Nursing Clinics of North America*. V. 24, 1989, p. 639.

- Beller, F. K. et al : Brain life and brain death; the anencephalic as an explanatory example; a contribution to transplantation. *Journal of Medicine and Philosophy*. V. 14, 1989, p. 5.
- Berman, E. Z. : Legal problems of organ transplantation. *Villanova Law Review*. V. 13, 1968, p. 732.
- Brahams, D. : Kidneys for sale; legislation is needed. (Editorial). *Medico-legal Journal*. V. 57, 1989, p. 73.
- Carroll, C. : Ethics of transplantation. *American Bar Association Journal*. V. 56, 1970, p. 137.
- Castel, J. G. : Some legal aspects of human organ transplantation in Canada. *Canadian Bar Review*. V. 45, 1968, p. 346.
- Cavarocchi, N. C. et al. : Heart/heart-lung transplantation; the Domino procedure. *Annals of Thoracic Surgery*. V. 48, 1989, p. 130.
- Collings, R. F. : Heart transplants; ethical considerations. *Catholic Lawyer*. V. 15, 1969, p. 56.
- Compulsory removal of cadaver organs. *Columbia Law Review*. V. 69, 1969, p. 693.
- Cooper, D. K. et al. : The Pathophysiological effects of brain death on potential donor organs, with particular reference to the heart. *Annals of the Royal College of Surgeons of England*. V. 71, 1989, p. 261.
- Cowen, Zelman : Law, medicine and biotechnology. *Melanesian Law Journal*. 1986, p. 1.
- Cowen, Z. : Organ transplantation; the legal issue. *University of Queensland Law Journal*. V. 6, 1969, p. 3.
- Cutter, M. A. : Moral pluralism and the use of anencephalic tissues and organs. *Journal of Medicine and Philosophy*. V. 14, 1989, p. 89.
- Davies, L. E. : Genetic engineering and vaccines. *Annals de l'Institut Pasteur Immunologie*. V. 136 D, 1985, p. 183.
- Developments in the law : Medical technology and the law. *Harvard Law Review*. V. 103, 1989-1990, p. 1519.
- Donnelly, P. K. et al. : Rising age limit for kidney donors ? (Letter). *Lancet*. V. 2, 1989, p. 397.
- Dukeminier, J. : Supplying organs for transplantation. *Michigan Law Review*. V. 68, 1970, p. 811.
- Dworkin, Gerald : The Law relating to organ transplantation in England. *Modern Law Review*. V. 33, 1970, p. 353.
- Eisenberg, Rebecca S. : Proprietary rights and the norms of Science in biotechnology research. *Yale Law Journal*. V. 97, 1987-88, p. 177.
- Epstein, C. J. : Medical genetics; recent advances with legal implications. *Hastings Law Journal*. V. 21, 1966, p. 35.

- Richardson, I.L.M. : Artificial insemination. *Australian Law Journal*. V. 30, 1966, p. 125.
- Robertson, J. A. : Ethical and legal issues in human egg donation. *Fertility and Sterility*. V. 52, 1989, p. 353.
- Rooney, D. E. et al. : Early amniocentesis; a cytogenetic evaluation. *British Medical Journal*. V. 299, 1989, p. 25.
- Rudlow, K. : Legal aspects of artificial insemination. *Australian Law Journal*. V. 28, 1955, p. 490.
- Saha, Maitreyee : Technology and gender bias. *Mainstream*. V. 24, 1985-86, p. 27.
- Silva, P. D. : Intrauterine insemination of cryopreserved donor semen. *Fertility and Sterility*. V. 52, 1989, p. 243.
- Smith, G. P. : Australia's frozen orphan embryos; a medical legal and ethical dilemma. *Journal of Family Law*. V. 24, 1985-86, p. 27.
- Smith, G. P. II : Artificial insemination; no longer a quagmire. *Family Law Quarterly*. V. 3, 1969, p. 1.
- Smith, G. P. II : For unto us a child is born legally. *American Bar Association Journal*. V. 56, 1970, p. 143.
- Smith, G. P. II : Through a test-tube darkby; artificial insemination and the law. *Michigan Law Review*. V. 67, 1968, p. 127.
- Surrogate motherhood (Editorial). *Calcutta Weekly Notes*. V. 89, 1984-85, p. 59.
- Taitz, Jerold : The Legal consequences of a sex-change; a judicial dilemma. *South African Law Journal*. V. 97, 1980, p. 65.
- Test-tube euphoria. *Economic and Political Weekly*. V. 21, 1986, p. 1383.
- Tort law—Prenatal injuries—Supreme Court of Illinois refuses to recognise cause of action brought by fetus against its mother for unintentional infliction of prenatal injuries. (Case Comment.), *Harvard Law Review*. V. 103, 1989-1990, p. 823.
- Vetri, Dominicy : Reproduction technologies and United States law. *International and Comparative Law Quarterly*. V. 37, 1988, p. 505.

III. LEGAL ASPECTS OF GENETIC ENGINEERING, CLONING AND ORGAN TRANSPLANTATION :

Articles

- Allen, Garland : Genetics, eugenics and society : Internalists and externalists in contemporary history of science. *Social Studies of Science*. V. 6, 1976, p. 105.
- Barr, W. J. : Teaching patients with life-threatening illnesses; Cardiovascular disease, transplantation and organ donation. *Nursing Clinics of North America*. V. 24, 1989, p. 639.

- Beller, F. K. et al : Brain life and brain death; the anencephalic as an explanatory example; a contribution to transplantation. *Journal of Medicine and Philosophy*. V. 14, 1989, p. 5.
- Berman, E. Z. : Legal problems of organ transplantation. *Villanova Law Review*. V. 13, 1968, p. 732.
- Brahams, D. : Kidneys for sale; legislation is needed. (Editorial). *Medico-legal Journal*. V. 57, 1989, p. 73.
- Carroll, C. : Ethics of transplantation. *American Bar Association Journal*. V. 56, 1970, p. 137.
- Castel, J. G. : Some legal aspects of human organ transplantation in Canada. *Canadian Bar Review*. V. 45, 1968, p. 346.
- Cavarocchi, N. C. et al. : Heart/heart-lung transplantation; the Domino procedure. *Annals of Thoracic Surgery*. V. 48, 1989, p. 130.
- Collings, R. F. : Heart transplants; ethical considerations. *Catholic Lawyer*. V. 15, 1969, p. 56.
- Compulsory removal of cadaver organs. *Columbia Law Review*. V. 69, 1969, p. 693.
- Cooper, D. K. et al. : The Pathophysiological effects of brain death on potential donor organs, with particular reference to the heart. *Annals of the Royal College of Surgeons of England*. V. 71, 1989, p. 261.
- Cowen, Zelman : Law, medicine and biotechnology. *Melanesian Law Journal*. 1986, p. 1.
- Cowen, Z. : Organ transplantation; the legal issue. *University of Queensland Law Journal*. V. 6, 1969, p. 3.
- Cutter, M. A. : Moral pluralism and the use of anencephalic tissues and organs. *Journal of Medicine and Philosophy*. V. 14, 1989, p. 89.
- Davies, L. E. : Genetic engineering and vaccines. *Annals de l'Institut Pasteur Immunologie*. V. 136 D, 1985, p. 183.
- Developments in the law : Medical technology and the law. *Harvard Law Review*. V. 103, 1989-1990, p. 1519.
- Donnelly, P. K. et al. : Rising age limit for kidney donors ? (Letter). *Lancet*. V. 2, 1989, p. 397.
- Dukeminier, J. : Supplying organs for transplantation. *Michigan Law Review*. V. 68, 1970, p. 811.
- Dworkin, Gerald : The Law relating to organ transplantation in England. *Modern Law Review*. V. 33, 1970, p. 353.
- Eisenberg, Rebecca S. : Proprietary rights and the norms of Science in biotechnology research. *Yale Law Journal*. V. 97, 1987-88, p. 177.
- Epstein, C. J. : Medical genetics; recent advances with legal implications. *Hastings Law Journal*. V. 21, 1966, p. 35.

- Evans, W. E. D. : The Chemistry of death. *Indian Police Journal*, 1964, p. 107.
- Finesilver, S. C. : Organ Transplants : A multi-discipline Challenge. *Trial*. V. 5, 1969, p. 40.
- Fletcher, J. C. : Ethical issues in an beyond prospective clinical trials of human gene therapy. *Journal of Medicine and Philosophy*. V. 10, 1985, p. 293.
- Ford, T. J. : Human organ transplantation; legal aspect. *Catholic Lawyer*. V. 15, 1969, p. 136.
- Foulkes, D. : Organ transplants. *New Law Journal*. V. 188, 1968, p. 486.
- Genetic approaches to microbial pathogenicity. *Current Topics in Microbiology and Immunology*. V. 118, 1985, p. 1.
- Gilbert, D. : Turning death into life; an organ recipient's story. *Michigan Medicine*. V. 88, 1989, p. 38.
- Harvard, J.D.J. : Influence of law on clinical decisions affecting life and death. *Medicine, Science and the Law*. V. 23, 1983, p. 157.
- Heart transplants : legal obstacles to donation. *Chicago-Kent Law Review*. V. 45, 1968, p. 78.
- Heart transplants : legal problems and the need for new legislation. *Case Western Reserve Law Review*, V. 19, 1968, p. 1073.
- Hillebrecht, J. M. : Regulating the clinical uses of fetal tissue : a proposal for legislation. *Journal of Legal Medicine*. V. 10, 1989, p. 269.
- Human Organ transplantation; the medical miracle and the legal maza. *South Carolina Law Review*. V. 20, 1968, p. 419.
- Iseman, M. D. : Tailoring a time-bomb; inadvertent genetic engineering (Editorial). *American Review of Respiratory Disease*. V. 132, 1985, p. 735.
- Ivan, L. P. : Anencephalic donors; a new ethical challenge for clinical neuroscientists. *Journal of Child Neurology*, V. 4, 1989, p. 158.
- Jayasuriya, D. C. : The Law jealously protects the organs of even the dead. (In : his, *Current Medico, Legal problems*. New Delhi, Sterling, 1984, Chap. 12).
- Jonakait, R. N. : Will blood tell ? Genetic Markers in criminal cases. *Emory Law Journal*. V. 31, 1982, p. 833.
- Khanna, H. R. : Science, technology and law. *Supreme Court Cases*, 1980, p. 17.
- Kirby, M. D. : Biotechnology and the law. *The Review (I.C.J.)* 1987 (Dec.), p. 46.

- Kutner, Luis : Due process of human transplants; a proposal. *University of Miami Law Review*, V. 24, 1970, p. 782.
- Legal problems in donation of human tissues to medical science. *Vanderbilt Law Review* V. 21, 1968, p. 352.
- Louisell, D. W. : Procurement of organs for transplantation. *North Western University Law Review*. V. 64, 1969, p. 607.
- Merz, B. : Stumbling blocks pave path to clinical trials for gene therapy (News). *Journal of American Medical Association*. V. 255 1986, p. 1825, 1832.
- Miller, H. I. et al. : Biotechnology regulation (letter). *Science*. V. 233, 1986, p. 1135.
- Mukherjee, A. M. : Impact of advanced science and technology of Law. *Law Quarterly*. 1968, p. 68.
- Muscoplat, C. C. : Where does genetic engineering lead ? *Basic Life Sciences*. V. 37, 1986, p. 311.
- Organ transplantation and the donation; a proposal for legislation. *William and Mary Law Review*. V. 10, 1969, p. 975.
- Prlom, S. H. : Molecular genetics and potential gene therapy. *Clinical Immunology and Immunopathology*. V. 40, 1986, p. 151.
- Paloa, J. : Genetic regulations; U. S. to settle dispute over agency jurisdiction (News). *Nature*. V. 32, 1986, p. 458.
- Parker, P. M. : Recognising property interests in bodily tissues; a need for legislative guidance. *Journal of Legal Medicine*. V. 10, 1989, p. 357.
- Parper J. A. : Ethical, religious and legal considerations to the transplantation of human organs. *Journal of Forensic Science*. V. 15, 1970, p. 1.
- Patient selection for artificial and transplanted organs, *Harvard Law Review*. V. 82, 1969, p. 1322.
- Physicians and surgeons-Transplantation of body parts. *Natural Resources Journal*. V. 8, 1968, p. 720.
- Providing human organs for medical transplants. *Washington and Lee Law Review*. V. 26, 1969, p. 58.
- Raia, S. et al. : Liver transplantation from live donors (letter). *Lancet*. V. 2, 1989, p. 497.
- Ramavataram, S. I. : A Plea for rationalization of the presumption as to death. *Academy Law Review*. V. 13, 1989, p. 239.
- Randall, G. C. and Randall, J. A. : Developing field of human organ transplantation. *Gonzaga Law Review*, V. 5, 1969, p. 20.
- Richards, V. : Medico-legal problems of organ transplantation. *Villanova Law Review*. V. 13, 1968, p. 732.

- Rowland, Bertram : Legal implications of letter licences for biotechnology. *High Technology Law Journal*. V. 1, 1986, p. 99.
- Sadler, A. K. and Sadler, B. M. : Transplantation and the law; the need for organized sensitivity. *Georgetown Law Journal*. V. 57, 1968, p. 5.
- Sahagan, B. G. et al. : Human gene therapy, scientific and ethical considerations. *Journal of Immunology*. V. 137, 1986, p. 1066.
- Samansky, F. S. : Tissue and organ transplants in human beings. *Brooklyn Barristar*. V. 19, 1968, p. 172.
- Samuels, Alec : Death and the law, medico-legal problems. *Medicine, Science and the law*. V. 23, 1983, p. 183.
- Senders, D. and Dukeminier, J. : Medical advance and legal lag; hemodialysis and kidney transplantation. *University of California Los Angeles Law Review*. V. 15, 1968, p. 267.
- Sellami, M. et al. : Manipulations in genetic engineering; consequences and fields of application. *Archives de, Institut Pasteur de Tunis*. V. 62, 1985, p. 8818.
- Singer, P. A. et al. : Ethics of liver transplantation with living donors. *New England Journal of Medicine*. V. 321, 1989, p. 620.
- Sommer, N. T. : Additional thoughts on the legal problems of heart transplants. *New York State Bar Journal*. V. 41, 1969, p. 196.
- Spotl, A. : Unconventional living kidney donors; attitudes and use among transplant centres. *Transplantation*. V. 48, 1989, p. 243.
- Terasaki, P. I. : A Proposal to increase donations cadaveric organs (letter). *New England Journal of Medicine*. V. 321, 1989, p. 618.
- Welters, L. : Ethics of human gene therapy. *Nature*. V. 320, 1986, p. 225.
- Williams, D. A. et al. : Somatic gene therapy; current status and future. *Journal of Clinical Investigation*. V. 77, 1986, p. 1053.
- Williamson, R. : Cloned genes and their use in the analysis of inherited disease, (3rd Wellcome Trust Lecture). *Biochemical Society Transactions*. V. 13, 1985, p. 807.
- Zaner, R. M. : Anencephalics as organ donors. *Journal of Medicine and Philosophy*. V. 14, 1989, p. 61.

IV. LEGAL REGULATION OF THERAPEUTIC AND NON-THERAPEUTIC EXPERIMENTS

Books

Coney, Sandra : *The Unfortunate experiment*. Auckland, Penguin, 1988.

Articles

Beechar : Ethics and clinical research. *New England Journal of Medicine*. V. 274, 1966, p. 1354.

- Bergslund, C. A. et al : Guide lines for research practice in Austria : NHMRC statement and professional codes. *Community Health Studies*. V. 13, 1989, p. 121.
- Breaux, A. : Can a healthy subject volunteer be injured in research ? *Hastings Center Report*. V. 16, 1986, p. 31.
- Campan, L. : Experiments in man : How far there we go ? *Agressologie*. V. 27, 1986, p. 28. (FRENCH)
- Caplan, A. L. : Ethical issues raised by research involving Xenografts. *Journal of American Medical Association*. V. 254 (23), 1945 (Dec.), p. 3339.
- Cassel, C. K. : Research in nursing houses; ethical issues. *Journal of the American Geriatrics Society*. V. 33 (11) 1965 (Nov.), p. 795.
- Castillo Perez, P. : Ethical aspects of drug evaluation in human beings. (Spanish/English abstr.). *Revista Clinica Espanola*. V. 179, 1986, p. 42.
- Coller, B. S. : The Newly dead as research subjects. *Clinical Research*. V. 37, 1989, p. 487.
- Deutsch, Erwin : Medical experimentation; International rules and practice. *Victoria University of Wellington Law Review*, V. 19, 1989, p. 1.
- Evans, F. J. : New drugs in medical practice; onus of 'Experimentation' as a medico-legal hazard. *Journal of Forensic Science*. V. 6, 1961, p. 1.
- Experimentation on human beings. *Stanford Law Review*. V. 20, 1967, p. 99.
- Ferngren, G. B. : Roman lay attitudes towards medical experimentation. *Bulletin of the History of Medicine*. V. 59, 1985, p. 495.
- Hayes, R. : Epidemiological research and privacy protection. *Medical Journal of Australia*. V. 141, 1984, p. 621.
- Hubens, A. : Clinical research in surgery. *Acta Chirurgica Belgica*. V. 85, 1985, p. ciii.
- Hurteau, G. et al : Philosophers in bioethics (letter). *Canadian Medical Association Journal*. V. 141, 1989, p. 193.
- Isambert, F. A. : Ethics Committees in France. *Journal of Medicine and Philosophy*. V. 14, 1989, p. 445.
- Jonsen, A. R. : Ethics of using human volunteers for high risk research. *Journal of Infectious Diseases*. V. 160, 1989, p. 205.
- Kasimba, P. et al. : Australian Commissions and Committees on issues in bioethics. *Journal of Medicine and Philosophy*. V. 14, 1989, p. 403.
- Kazar, G. : Ethical implications of human experimentation (letter). *Orvosi Hetilap*. V. 130, p. 2015.

- Kinard, E. M. : Ethical issues in research with abused children. *Child Abuse and Neglect*. V. 9, 1985, p. 301.
- Kjonstad, A. : Informed consent in medical research. *Medicine and Law*. V. 5, 1986, p. 11.
- Knapp, V. : Medical experiments on living humans; legal aspect *Ceskoslovenske Zdravotnictvi*. V. 33, 1985, p. 359.
- Ladimer : Socio-medico-legal aspects of human experimentation. *Journal of Public Law*. V. 2, 1954, p. 294.
- Langer, D. H. : Children's legal rights as research subjects. *Journal of the American Academy of Child Psychiatry*. V. 24, 1985, p. 653.
- Medical experiments on human subjects. *University of Toronto Faculty of Law Review*. V. 25, 1967, p. 25.
- Medical Research Council : Responsibility in the use of medical information for research. *British Medical Journal*. V. 1, 1973, p. 213.
- Noble, M. A. : Written informed consent; closing the door to clinical research. *Nursing outlook*. V. 33, 1985, p. 292.
- Oberst, M. T. : Another look at informed consent. *Nursing outlook*. V. 33, 1985, p. 294.
- Royle, J. M, et al. : Medical research on normal volunteers. *British Journal of Clinical Pharmacology*. V. 21, 1986, p. 548.
- Sass, H. M. ; Blue-ribbon Commissions and political ethics in the Federal Republic of Germany. *Journal of Medicine and Philosophy*. V. 14, 1989, p. 465.
- Science, religion, belief and Baby Doe (letter). *Hastings Center Report*. V. 16, 1986, p. 46.
- Williams, J. R. : Commissions and bio-medical ethics, the Canadian experience. *Journal of Medicine and Philosophy*. V. 14, 1989, p. 425.
- Wilson, R. : Life and death; the impact of human rights on experimenting with life. *Australian Journal of Forensic Science*. V. 17, 1985, p. 61.

V. LAW AND MEDICAL NEGLIGENCE

Books

- Danzon, Patricia M. : *Medical Malpractice; theory, evidence and public policy*. Cambridge, Harvard University Press, 1985.
- Fleming, J. : *Law of Torts*. 7th ed. London, Oxford University Press, 1987.
- Giesen, D. : *Medical Malpractice Law; a comparative law study of civil responsibility arising from medical care*. Bielefeld, Geiseking-Verlag, 1981.
- Curry, Francis : *Breach of confidence*. London, Oxford University Press, 1984.

- McLean, Sheila : *A Patient's right to know; information disclosure, the doctor and the law*. U. K., Dartmouth, 1989.
- Picard, E. J. : *Legal liability of doctors and hospitals in Canada*. Toronto, Carswell, 1978.

Articles

- Annas : Law and psychiatry; when must the doctor warn others of the potential dangerousness of his patient's condition ? *Medico Legal News*. 1975.
- Bennetts : Consent to treatment; legal aspects of the Consent to Medical and Dental Procedures Act, 1985. *Adelaide University Continuing Legal Education Law Papers*. V. 11, 1987, p. 1.
- Bhandari, M. K. : Cases of medical negligence; a comparative conspectus of legal liability-Need for a functional balance. *Indian Judicial Reports*. V. 14, 1987, p. 11.
- Bolt, David : Compensating for medical mishaps; a model 'no fault' scheme. *New Law Journal*. V. 139, 1989, p. 109.
- Brahams : End-stage renal failure; the doctor's duty and the patient's right. *Lancet*. 1984, p. 386.
- Brannigan and Dayhoff : Liability for personal injuries caused by defective medical computer programmes. *American Journal of Law and Medicine*. V. 7, 1981, p. 123.
- Bravender-Coyle, Paul : The Law relating to confidentiality of data acquired by researchers in the biomedical and social sciences. *University of Tasmania Law Review*. V. 8, 1986, p. 333.
- Brazier : Patient autonomy and consent to treatment; the role of the law. *Legal Studies*. V. 7, 1987, p. 169.
- Breach of confidence; an emerging tort. *Columbia Law Review*. V. 82, 1982, p. 1426.
- Broader, A. J. : Res ipsa loquitur in medical malpractice cases. *De Paul Law Review*. V. 18, 1969, p. 345.
- Bromberger : Patient participation in medical decision making. *University of New South Wales Law Journal*. V. 6, 1983, p. 1.
- Buchan, Andrew : Disclosure of medical expert's report in medical negligence cases. *New Law Journal*. V. 137, 1987, p. 513.
- Carrol, Lucy : Dieter Giesen on civil liability in the field of medicine. *Isamic and Comparative Law Quarterly*. V. 6, 1986, p. 287.
- Claim preclusion in modern latent disease cases; a proposal for allowing second suits. *Harvard Law Review*. V. 103, 1989-1990, p. 1989.
- Das, Sujit J. : ICS; neglecting operational problems. *Economic and Political Weekly*. V. 21, 1986, p. 1430.

- Dickens, Bernard M. : Medicine and the law; with-holding paediatric medical care. *Canadian Bar Review*. V. 62, 1984, p. 196.
- Father and mother know best; defining the liability of physicians for inadequate genetic counselling. *Yale Law Journal*. V. 87, 1977-78, p. 1488.
- Feng : Failure of medical advice; trespass or negligence. *Legal Studies*, V. 7, 1987, p. 149.
- Fisher, R. M. : The psychotherapeutic professions and the law of privileged communications. *Wayne Law Review*. V. 10, 1964, p. 609.
- Flawed promises; a critical evaluation of the American Medical Association's Guides to the Evaluation of permanent impairment. (Book review). *Harvard Law Review*. V. 103, 1989-1990, p. 964.
- Fleming and Maximov : The patient or his victim; the therapist's dilemma. *California Law Review*. V. 62, 1974, p. 1025.
- Functional overlap between the lawyer and other professionals; its implications for the privileged communications doctrine *Yale Law Journal*. V. 71, 1962, p. 1226.
- Geisen, Dieter : Civil liability in the field of medicine. *Islamic and Comparative Law Quarterly*. V. 4, 1984, p. 14.
- Gill, Christopher J. : Medical expert systems; grappling with issues of liability. *High Technology Law Review*. V. 1, 1986, p. 483.
- Hullverson, James E, Jr. : Reasonable degree of medical certainty; a tort et a travers. *St. Louis University Law Journal*. V. 31, 1987, p. 577.
- Jones, G. : Restitution of benefits obtained in breach of another's confidence. *Law Quarterly Review*. V. 86, 1970, p. 463.
- Jones, Michael A. : Doctor knows best. *Law Quarterly Review*. V. 100, 1984, p. 355.
- Kirby, M. D. : Should doctor's records be privileged? *Medical Journal of Australia*. V. 2, 1981, p. 115.
- Lipman, Z. : Criminal liability of medical practitioners for with-holding treatment from severely defective new born infants. *Australian Law Journal*. V. 60, 1986, p. 286.
- Louisell, D. W. and Williams, H. : Res ipso loquitur; its future in medical malpractice cases. *California Law Review*. V. 48, 1960, p. 252.
- Mack, Kathleen : Impact of the Consent to Medical and Dental Procedures Act, 1985 (SA) on common law principles of informed consent in South Australia. *Adelaide Law Review*. V. 11, 1988, p. 448.
- Madan Mohan : Accountability of medical profession. *Indian Bar Review*. V. 15, 1988, p. 226.

- Magnet, J. E. : With-holding treatment from defective new borns; legal aspects. *Revue Du Barreau*. V. 42, 1982, p. 187.
- Medical negligence; three principles. *New Zealand Law Journal*. V. 23, 1957, p. 213.
- Meisel : Expansion of liability for medical accidents; from negligence to strict liability by way of informed consent. *Nebraska Law Review*. V. 56, 1977, p. 51.
- Millner, M. A. : Vicarious liability for medical negligence. *Journal of Forensic Medicine*. V. 5, 1958, p. 96.
- Negligence-Medical malpractice; the locality rule. *De Paul Law Review*. V. 18, 1968, p. 328.
- Negligence-Res ipsa loquitur; application to medical malpractice actions. *Michigan Law Review*. V. 60, 1962, p. 1153.
- North, P. M. : Breach of confidence; is there a new tort? *Journal of Society of Public Teachers of Law*. V. 12, 1972, p. 149.
- Palinscar, J. : The Physieian's role in detecting and reporting elder abuse. *Journal of Legal Medicine*. V. 3, 1982, p. 413.
- Paris and Fletcher : Infact Doe regulations and the absolute requirement to use nourishment and fluids for the dying infant. *Law, Medicine and Medical Care*. V. 11, 1983, p. 210.
- Peiris, G. L. : Medical professional privilege in Commonwealth law. *International and Comparative Law Quarterly*. V. 33, 1984, p. 301.
- Peizer, Donna M. : A Social and legal analysis of the independent practice of midwifery; vicarious liability of the collaborating physicians and judicial means of addressing denial of hospital privileges. *Berkeley Women's Law Journal*. V. 2, 1986, p. 139.
- Plante : The Decline of 'Informed consent.' *Washington and Lee Law Review*. V. 35, 1978, p. 91.
- Prentice and Murray : Liability for transmission of herpes; using traditional tort principles to encourage honesty in sexual relationship. *Journal of Contemporary Law*. V. 11, 1984, p. 67.
- Price, S. H. : The Sinking of the 'captain of the ship'; Re-examining the vicarious liability of an operating surgeon for the negligence of assisting hospital personnel. *Journal of Legal Medicine*. V. 10, 1989, p. 323.
- Prins, Herschel A. : Diminished responsibility and the Sutcliffe case; legal, psychiatric and social aspects (a layman's views). *Medicine Science and the Law*. V. 23, 1983, p. 17.
- Robertson : Informed consent of medical treatment. *Law Quarterly Review*. V. 97, 1981, p. 102.
- Robertson, Gerala : Damages for the birth of a child, some possible policy barriers. *Medicine, Science and Law*. V. 23, 1983, p. 2.

Resipsa loquitur and the calculated risk in medical malpractice. *Southern California Law Review*. V. 30, 1956, p. 80.

Rosencranz, Holly A. and Lavey, Warren G. : Treating patients with communicable diseases; limiting liability for physicians and safeguarding the public health. *St. Louis University Law Journal*. V. 32, 1987, p. 75.

Sagal, C. N. : Medical malpractice in an organ transplantation. *Trial Lawyers Quarterly*. V. 6, 1969, p. 47.

Samuels, A. : The Duty of the doctor to respect of confidence of the patient. *Medicine Science and the Law*. V. 20, 1980, p. 63.

Samuels, Alec : Medical negligence today; an appraisal. *Medicine, Science and the Law*. V. 23, 1983, p. 31.

Sankaran, M. V. : Wrongful life, wrongful birth; legal responses. *Indian Bar Review*. V. 12, 1985, p. 187.

Saxena, J. P. : The Surgeon's limit; a medico-legal view. *Cuttack Law Times*. V. 44, 1977, p. 47.

Saxena, J. P. : Medical liability; consent in medical practice. *Accident Claims Journal*. V. 20, 1985, p. xii.

Saxena, J. P. : The Surgeon's Limit : A Medico-Legal view.. *Criminal Law Journal*. V. 85, 1979, p. 6.

Shuman, D. and Weiner, M. : The Privilege study; an empirical study of the psychotherapist,—Patient privilege. *Narth Carolina Law Review*, V. 60, 1982, p. 893.

Skegg : Informed consent to medical procedures. *Medicine, Science and the Law*. V. 15, 1975, p. 124.

Skegg : A Justification for medical procedures performed with out consent. *Law Quarterly Review*. V. 90, 1974, p. 512.

Skegg, P. D. G. : Temination of life-support measures and the law of murder. *Modern Law Review*. V. 41, 1977, p. 423.

Slovenko, R. : Psychiatry and a second look at the medical privilege. *Wayne Law Review*. V. 6, 1960, p. 175.

Smith : Some recent cases on informed consent. *Adelaide Law Review*. V. 9, 1984, p. 413.

Sternbach, L. : Legal position of physicians in ancient India. In his *Juridical Studies in ancient Indian Law*, Pt. I. Delhi, Motilal Banarasidass, 1965, p. 280; *Annals of Bhandarkar Oriental Research Institute*. V. 29, Parts I-IV, pp. 21-42; and V. 30, parts I-II, p. 1.

Sternbach, L. : Legal responsibility of physicians in ancient India for their carelessness in medical treatment. *New Indian Antiquary*. V. no. 5-6, pp. 101-105; and *Proceedings of the Indian History Congress*, 7th session, Madras, 1944, at p. 112.

Stone, Alan A. : The Tarasoff decisions; suing psychotherapists to safe guard society. *Harvard Law Review*. V. 90, 1976, p. 358.

Strong : Informed consent; theory and policy. *Journal of Medical Ethics* V. 5, 1979, p. 196.

Sugand, Sarla : False test led to abortion of male child. *The Lawyers Collective*. V. 1, 1986, p. 7.

Symmons, C. R. : Policy factors in actions for wrongful birth. *Modern Law Review*. V. 50, 1987. p. 269.

Teff : Consent to medical procedures; paternalism, self-determination therapeutic alliance. *Law Quarterly Review*, V. 101, 1985, p. 432.

To tell or not to tell; physician's liability for disclosure of confidential information about a patient. *Cumberland Law Review*. V. 13. 1982-1983, p. 617.

Unskillful sterilization operation; liability of doctor for damages (editorial). *Calcutta Weekly Notes*. V. 89, 1984-85, p. 165.

Waibi, K. et al. : (When the admitting physician is accused of a false decision in the hospital.... Guiding decision for amniocentesis; some flaws. (GERMAN). *Fortschritte der Medizin*. V. 107, 1989, p. 64.

Williams, Glanville : Down's syndrome and the doctor's responsibility. *New Law Journal*. V. 131, 1981, p. 1040.

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