



TRANSPLANTATION OF HUMAN ORGANS; LEGAL & ETHICAL ISSUES

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Abstract:

Transplantation of human organs is a priceless legacy of modern medical science to the mankind. It has come as manna from heaven to protect the life of those unfortunate patients who could have otherwise breathed their last cutting short the life span or lived in perennial agony. But it has its flip side. It has paved the way for commercial dealings in human organs. In addition to that it has given rise to very complicated legal and ethical issues. This article makes an attempt to analyse the legal regime of transplantation of human organs in a few jurisdictions with special reference to the legal, ethical and other related issues.

KEY WORDS:

Transplantation, Legal, Ethical Issues, medical science.

.INTRODUCTION

Meaning of Transplantation: Transplantation signifies the replacement of a failing organ by a functioning one. Legally it is defined as the grafting of any human organ from any living or deceased person to some other living person for therapeutic purposes. Human organ means any part of a human body consisting of a structural arrangement of tissues which if wholly removed, cannot be replicated by the body. Accordingly cornea, heart, lungs, intestine, liver, kidney, hand, leg etc. fall into the ambit of the definition of human organ and the regime of legal control of transplantation of human organs. It follows that any of the above organs can be grafted from the body of a person to the body of another person for therapeutic purpose i.e. for systematic treatment of any disease or taking any measure to improve or protect health in accordance with particular method or modality.

Types of Donors: Transplantation of human organs can be undertaken when there are donors to donate their organ. Donors broadly fall into the following two categories.

Living Donors: The donor being alive donates an organ or part of an organ in which the remaining organ can discharge the function, for example, single kidney donation, partial donation of liver and small bowel.

Deceased Donors: These are donors who have been declared as brain dead. Their organs are kept viable by ventilators or any other mechanical mechanisms until they can be used for transplantation. Added to this list, are the persons who die as a result of cardiac arrest.

TYPES OF DONATION:

Donation to a related recipient or friend: The living donors donate their organs to their family

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members or friends with whom they have emotional attachment. They derive the psychological benefit of protecting the life of one who is dear to them or relieving a person from painful waiting for the availability of an organ, which outweighs the pain or risk associated with the medical procedure for removal or organ.

Paired Exchange: It is also donation of human organs by living donors. It is a technique of matching willing donors to compatible recipients. For e.g.' a husband may be willing to donate a kidney to his wife, which is not a biological match. His kidney is biological match for the wife of another person whose kidney is compatible with the wife of the first one. Exchange of organs so exchanged is paired one.

Good Samaritan: It is also known as altruistic donation. The donors donate an organ to a recipient not related to him. They select the recipients based on some consideration important to them.

Compensated Donation: In this type of donation, the donors get monetary consideration or any other consideration, in exchange of their organs. It is common in some part of the world whether legally permissible or not. It is resulted in commercial dealings in human organ. Another outcome of this practice is medical& transplantation tourism.

Forced donation: It is nothing but donation of human organ in the absence of free consent. It involves harvesting of organs from people who are considered as undesirable. For example prisoners awaiting execution. It is a well established proposition of law that a prisoner cannot give voluntary consent to any medical procedure to be performed on his body. Prisoners even if give their consent, even in the absence of any force, it cannot be a free one. The authorities may harvest organs from the body of executed prisoners. It results in illegal dissection of the body leading to a form of body snatching. China presents this scenario, where approximately 95% of the human organs harvested are from the body of executed prisoners, for which a justification is found in the lack of a public organ donation programme there.

Kinds of Transplants: The following are the various types of transplants known to the medical world.

Autograft: It signifies transplant of tissue to the same person. This is done with surplus tissue or tissues that can regenerate or tissue needed elsewhere eg. Skin grafts.

Allograft: It is transplant of an organ or tissue between two members of the same specie who are genetically non-identical. It involves the risk of the recipient rejecting the organ, to prevent which he needs to take immunosuppressant. Such suppressants affect the entire immune system, exposing the body to pathogens.

Isograft: It is a procedure in which organs or tissues are transplanted from the body of a donor to a genetically identical recipient eg. an identical twin. It does not affect the immune system. It does not cause transplant rejection.

Xenograft: It is nothing but transplantation of an organ or tissue from one specie to another eg. Porcine heart valve transplants. If experiments are successful it may pave way for potential human use. But it is an extremely dangerous type of transplant as it involves the risk of rejection consequent upon non-compatibility and the organ or tissue carrying disease.

Split transplants: As the name itself indicates a deceased donor organ is split between two recipients a male and child, usually liver. This is not an acceptable option as the transplantation of a whole organ is more successful.

Domino transplants: This procedure is carried on a patient suffering from cystic fibrosis which necessitates replacement of both the lungs. It is an easier procedure to replace both lungs and heart simultaneously.

Law permits transplantation of human organ for therapeutic purpose which signifies a systematic treatment of a patient observing a particular method. The method should be one which is known to the medical world. Pig-headedly a medical practitioner cannot take recourse to a procedure which is not known to the medical world. Accordingly it follows that a medical practitioner can take recourse to any of the above procedures which are well known to the medical world. Taking recourse to an unknown procedure is not only illegal, but also unethical.

A Comparative Analysis of Legal Regime of Transplantation of Human Organs.

India

The Transplantation of Human Organs Act, 1994 seeks to regulate the removal of human organ for therapeutic purpose and prohibit commercial dealings in human organs.

Donation of Human organ for Therapeutic purpose:

The Act permits donation of human organ by a living or deceased donor. Such donation must be only for a therapeutic purpose. A living donor may donate any human organ to a recipient who is a near relative, but not to a stranger. But removal of a human organ to be transplanted to a person with whom the donor has a special attachment or for whom he has love and affection is permitted provided it is authorized by the Authorization Committee Constituted under the Act. It follows that removal of an organ to be transplanted to a recipient who is not a near relative is permitted subject the conditions stated above.

A living donor must be a person who has attained the age of majority and voluntarily authorized the removal

of any of his human organs for therapeutic purpose. In effect, a minor is not allowed to donate human organ for the reason that he is not in a position to understand the consequences of removal of human organ on his death. Especially in case of a minor it will have a serious consequence on his physical as well as mental health.

Removal of human organ from the body of a deceased person is allowed, if during his life time he had made an unequivocal declaration in writing as to his intention to remove any human organ from his body, after his death, for any therapeutic purpose only. Removal of human organ for commercial purpose is not permitted even from the body of a deceased person. The above said declaration must be made in the presence of two witnesses, one of whom shall be a near relative. So it should be within the knowledge of the near relative that the deceased had made such a declaration. The underlying rationale for the insistence of one of the relatives to be near relative, perhaps, is to avoid any commercial dealing in human organ.

The Act by permitting both a living donor and deceased donor to donate human organs for therapeutic purpose subject to conditions prescribed seeks to recognize the principle of bodily autonomy which enables a person to decide what shall be or what shall not be done with respect to his body and safeguard public interest by providing a human organ to a needy patient to save his life or protect his health.

In the absence of any such declaration as contemplated above, removal of human organ for therapeutic purposes from the body of a deceased person may be permitted by the person who is in lawful possession of the dead body, provided the deceased person did not have any objection for such removal during his life time.

The authority given by the person in lawful possession of the dead body shall be considered as sufficient consent for a medical practitioner to remove any human organ for therapeutic purpose. Removal of human organ from the body of a deceased person requires confirmation by a registered medical practitioner that life is extinct in that body. Brain stem death requires certification by a panel of medical experts to be constituted as contemplated in the Act to the effect that life is extinct in the body from which a human organ is to be removed. The person to whom the body of a deceased person is entrusted for the purpose of interment, cremation or disposal cannot authorize removal of human organ.

Authority for removal of human organs from unclaimed dead bodies lying in a hospital or prison can be given by the person responsible for the management of the hospital or prison as the case may be, provided within 48 hours such dead bodies are not claimed by any near relatives. If there is any reason to believe that there is likelihood of any near relative claiming the dead body no authority for removal of human organ shall be given, notwithstanding the fact that the dead body is not claimed within 48 hours of death.

The person competent to authorize the removal of human organ from the body sent for post-mortem examination for medico-legal or pathological purposes may give such authority provided he has reason to believe that the human organ is not necessary for the purpose of post-mortem examination. He should further ensure that the deceased person during his life time had not expressed any objection for removal of any human organ after death or had not revoked before his death any authority what he had given earlier for such removal.

Prohibition on commercial dealings in human organs: The most avowed object of the Act is to prohibit commercial dealings in human organs, which signifies the following.

- (a) Making or receiving any payment for the supply of or offering to supply human organ for any payment.
- (b) Seeking to find a person willing to supply any human organ for any payment.
- (c) Offering to supply any human organ for payment.
- (d) Initiating or negotiating any arrangement involving the making of any payment for the supply of or for an offer to supply any human organ.
- (e) Taking part in the management of or control of a body of persons, whether a society or firm or company whose activities consist of the initiation or negotiation of an arrangement contemplated above.
- (f) Publishing or distributing or causing publication or distribution of any advertisement.
- (i) inviting persons to supply for payment any human organ or
- (ii) offering to supply any human organ for payment or
- (iii) indicating that the advertiser is willing to initiate or negotiate any arrangement contemplated above.

It follows that any offer to supply or supply of any human organ for monetary consideration amounts to commercial dealings in human organ.

Supply of human organs for payment is prohibited notwithstanding the fact that it is for therapeutic purpose. This prohibition places a check on removal of human organs. But in the absence of such prohibition poverty stricken people will openly part with their organs for monetary consideration to

look after their family or to get rid of their financial constraints. Removal of human organ may sometimes cause serious health hazard to the donor. In effect he may become a burden to the society and the very same family which he wanted to protect from the proceeds of supply of organ. The ill-consequences may outweigh the benefits.

Informed consent of Donor and Recipient: A medical practitioner before performing any medical procedure or administering any treatment should not only obtain the consent of the patient, but also his informed consent. Accordingly a registered medical practitioner before the removal and transplantation is under a legal obligation to explain the possible effects, complications and hazards associated with removal and transplantation both to the donor and recipient. It follows that the informed consent of both the donor and recipient is necessary for removal and transplantation, respectively. This enables the donor and recipient to make an informed choice either to opt for or opt out from the procedure.

Other provisions: Any hospital where removal and transplantation of human organ are undertaken shall be registered under the Act. Otherwise all persons associated with that will invite criminal liability under the Act. A medical practitioner, who commits any offence under the Act, in addition to punishment, invites disciplinary action by the Medical Council by way of suspension of registration for a period of two years in case of first offence or permanently on subsequent offence as the case may be. A hospital though registered under the Act, if violates any provision it invites disciplinary action by way of cancellation of its certificate of registration.

UNITED STATES OF AMERICA

The population waiting for transplants is on the increase, as a result of a huge gap between demand and supply of organs. Harvesting of organs has become a Herculean task. To obviate the difficulty, a number of statutes have been enacted to address the problem of organ harvesting.

Uniform Anatomical Gift Act, 1968; It allows any competent adult to donate his organs after his death by stating in writing or signing a donor card or checking off an item on a driving licence application or permitting his next of kins to authorize organ donation, to promote encouraged voluntarism for procurement of organs on the basis of the free and independent choice of the donor or his next of kins.

BRAIN DEATH STATUTES:

Harvesting of organs is further supported by brain death statutes. These statutes make it possible to declare those person dead in whom brain has ceased to function, but kept alive through artificial means. Such brain dead persons become potential organ donors. The accident victims are the major source of organ procurement.

The encouraged voluntarism and brain death statutes have not become successful in procuring the required number of organs. The following reasons are attributed for the same. The mere thought of death creates a fear in the minds of a few people that they are not prepared to contemplate the idea of death. In effect, such people making a declaration as to donating the organ after their death, does not arise at all. There is no universally accepted definition of death. The definition of death has become a controversial issue that some states have refused to accept the concept of death as contemplated in the brain death statutes. The medical professionals are not generally required to present the option of organ donation to the critically ill and injured patients and their families. The impersonal medical institutions have also detained many people from donating organ. Moreover people having donor card have an apprehension that they may not receive the required medical attendance in anticipation of procuring organs. In addition to that the donor card may go unnoticed.

National Organ Transplant Act 1985: As per this Act, it shall be unlawful for any person to knowingly acquire, receive or otherwise transfer any human organ for valuable consideration for use in human transplantation if the transfer affects interstate commerce. Accordingly, commercial dealings in human organ is prohibited.

As there has been a constant increase in the demand for organs, a few people advocated the establishment of an organ market. But sale of organ has been prohibited by the state and federal legislations. Instead of creating an organ market, the Congress enacted laws which contemplate required request protocols.

Omnibus Reconciliation Act, 1986: It imposes an obligation on major hospitals to request the patient's family whether they wish to donate patient's organ. Such request will certainly make a positive impact on a few people to donate the organ of a patient, which they would not have done but for such

request.

Presumed Consent Laws: Some states have gone a step ahead to enact presumed consent laws under which consent for organ donation is presumed unless the next of kins of the deceased object the same or the deceased is known to have objected the same, when he was alive. Some of these laws are applicable only to unclaimed dead bodies. A few of these laws contemplate removal of only cornea under the conditions contemplated above.

As the advancement in the sphere of medical science has become more complex, it has given rise to vexing and complicated legal and ethical issues, boiling down to three controversial issues, viz., conception for organ donation, donor consent and transplants from terminally disabled patient.

Conception for organ donation: This is indeed a strange concept which drives the couples to conceive a child for the purpose of harvesting an organ to be transplanted usually to another child or a blood relative. In 1990s in California, a couple gave birth to a child with the sole hope of transplanting its bone marrows to their teenage daughter who was suffering from cancer. Legality of such conception cannot be challenged. But it gives rise to ethical questions as to who may give informed consent on behalf of the donor child and whether such practice results in child abuse. It should be noted that the child itself is not in a position to give informed consent. Naturally the parents have to give the informed consent. If that is permitted, the child is deprived of its human rights. It certainly results in child abuse. If the child at a later stage comes to know that it has been conceived with the sole purpose of protecting the life of another child may be its brother or sister or a blood relative, it will certainly have a drastic consequence on its mental health. The policy of robbing of Peter, to help John should not be adopted.

Donor Consent: The problem of donor consent arose in number of lawsuits seeking direction of the court compelling persons to donate their organs to relatives. In *Curran V. Bosze*, a son in a family was suffering from leukemia. He initiated a lawsuit requesting the Court to compel his half-brother and half-sister to submit to preliminary medical tests to ascertain their compatibility to serve as bone marrow donors. The mother of the half-siblings raised objections for the same. Taking into consideration the objections, the court held that such tests would be a violation of the right of privacy of potential organ donors. According to the court the following factors must be taken into consideration to determine the best interest of the child. (i) Knowledge of consenting parent regarding the inherent risks and benefits of the procedure (ii) ability of the primary care taker to provide emotional support to the child (iii) close relationship between the donor and the recipient.

If follows from the decision that the donor or a parent acting on behalf of a child must be capable of making an informed choice providing emotional support to the child after removal of any organ to its mental health. Further it is obvious that the recipient must be a close relative of the donor.

Transplants from terminally disabled patients: In a case before the Florida Supreme court, the parents of a baby suffering from anencephaly, a fatal gestational disorder, which causes death in the child soon after birth, sought to have organs for newborn babies, declaring her as brain dead. Under Florida statutes a person can be declared as brain dead only if all functions of the brain have irreversibly come to an end. The court observed that the child had lower-brain activity. The child died ten days of birth, without donating her organs.

The decision of the Court has raised a very consequential ethical debate. The critics of the decision argue that as anencephaly is a fatal disorder, the child is sure to die soon after birth that the organs must be used to save the life of other children. On the other hand the supporters has come with a contention that if an exception is made for anencephaly, children suffering from similar disorder will be targeted as a harvesting ground of organs and the life a child is as important as another child, notwithstanding the fact that it is very brief.

In a situation contemplated above the best option is to permit the parents to donate the organs after the death of the child.

Required Referral System: It is mandatory under law for all hospitals to have a 'required referral system'. Accordingly the hospitals must furnish information regarding patient deaths to the organ procuring organization (OPO). The OPO determines whether organ/tissue donation is appropriate in a particular case. If it so determines, a representative will contact the family members of the deceased to request them to donate the organs and tissues of the deceased. Generally, an individual signifies his desire by signing a Uniform Donor Card. But on death of a potential donor, yet the next of the kin will be asked to sign the consent form.

Formal procedure: The donors' organs are matched to the waiting recipients by a national computer registry, known as the National Organ procurement and Transplantation Network [OPTN], which is operated an organization known as the United Network for organ sharing [UNOS]. The OPOS help the transplant centres in procuring organs.
United Kingdom

The transplantation of human organs is regulated by the Transplantation of Human Organs Act, 1989. It prohibits commercial dealings in human organs. However the term payment does not include reimbursement of cost of removing transporting or preserving the organ to be supplied or any expenses or loss of earnings which can be reasonably attributed to supplying of any organ. It permits transplantation of an organ from the body of a living donor who is genetically related to the recipient. In effect, removal of an organ from the body of a living person to be transplanted to a person who is not genetically related to the former invites punishment. However, the Secretary of the State by a regulation to that effect exempt the parties from punishment provided there is no commercial dealing in organs.

Formal procedure for procurement of organ: In United Kingdom also the situation is not different that there is a wide gap between demand and supply of organs. A large number of patients are awaiting for transplantation. A UK-wide organ allocation system is run by a body called National Health Service Blood and Transplantation, to guarantee that the patients awaiting for transplantation are treated fairly Patients requiring transplants need to register on the UK National Transplant Database. Before allocating organs to the patients necessary precautions are taken to ensure compatibility of donors organ to the recipient Rules for allocation are framed in consultation with the health professionals, Department of Health and the specialist groups of NHSBT.

SINGAPORE

The transplantation of human organs is regulated under the Human Organ Transplant Act, 1987. it regulates cadaveric organ donation and living donor organ transplants.

Cadaveric Organ Donation: It provides for an opt-out organ donation system, allowing removal of kidneys, livers, hearts and corneas from Singapore citizens and permanent residents who have died, for the sole purpose of transplantation, subject to the fulfillment of following conditions:

- (i) They must have attained the age of 21 years and be of sound mind,.
- (ii) They died in a hospital.
- (iii) Their organs are suitable for transplant.
- (iv) There are suitable recipients for the organs to be removed.

The Act covers removal of only kidneys, livers, hearts and corneas. However, any person who has attained the age of 18 years, may under Medical (Therapy, Education and Research) Act, 1972, pledge to donate any of his organ and tissues after his death, for the purpose of transplantation, education or research.

It follows from the above provision that removal of human organs is allowed only for transplantation. Human organs even from the dead body cannot be removed for any commercial dealing which is a punishable offence.

LIVING DONOR ORGAN TRANSPLANTS.

Besides cadaveric Organ donation the Act regulates removal of human organs from the body of a living donor for transplantation. Living donor organ transplants requires written authorization from the Hospital Transplants Ethics Committee. Payments can be made to the living donors to reimburse them for the loss of earnings, other costs or expenses including one incurred as a result of the organ donation. Apart from this no other payments can be made. If made, that will be considered as sale of organ for monetary consideration which is banned by law to prevent the exploitation of poor and socially disadvantaged persons who cannot make informed choices and sustain potential medical risks. In one instance in 2008 an Indonesian aged 26 pleaded guilty for sale of his kidney. In another instance, the accused aged 27 years, donated one of his kidneys to a patient alleging that he was his adopted son, for \$20,200. In both the instances they were found guilty.

The Human Organ Transplant (Amendment) Bill 2009 seeks to introduce the following changes;

- (i) Removal of the 60 year upper age limit on cadaveric organ donors.
- (ii) Allowing paired exchange.
- (iii) Reimbursement of living donors in accordance with international and local ethical practices.
- (iv) Increased penalties for organ trading syndicates and middlemen.

China

Trading of organs is banned. The doctors involved in commercial trading of organs will invite penalty and suspension. Transplantation of human organs can be undertaken only in a few certified hospitals. Donor's consent is necessary for harvesting of organs, otherwise it is considered as a crime.

Organ Transplantation and Ethical Issues: Transplantations are certainly beneficial to the recipients. But it has given rise to ethical controversies surrounding the source and method of harvesting human organs and the notion of distributive justice. As discussed above there are two sources viz., living donor transplants and cadaveric organ transplants. No living person can be compelled to donate his organ against his wish that his right of self-determination must be respected. Any such compulsion will violate the basic rights conferred upon him under the Universal Declaration of Human Rights. On the other hand in developing and underdeveloped countries due to poverty and economic constraints, people as against their will, are constrained to offer their organs for monetary consideration. Though directly there is no coercion indirectly it results in a coercive offer as he is forced to do that. It may be gift of life for the recipient. At times it may prove fatal to the donor that whatever may be the consideration, he has received that will be outweighed by the ill-consequences.

The opposing view is that so far as sale of an organ between two consenting adults is mutually beneficial transaction based on informed consent, why it should be prohibited. Such prohibition also is violative of the right of self-determination of an individual. In addition to that it will be breach of rights conferred under the Universal Declaration of Human Rights.

Another source of organ harvesting is cadaveric organ donation i.e., harvesting from dead bodies. It is a well established proposition of law that dead bodies are neither goods nor properties which can be sold and purchased in a market. Human organ is excluded intentionally from the definition of goods, under statute relating to sale of goods, all over the world. Moreover, law ensures a decent burial of corpse. Legally, removal of human organ from the dead body is permitted, if there is a declaration to that effect by the deceased when alive or his next of kins has no objection for the same. In the absence of such declaration, if there are objections from the next of kins, no organ can be removed from the dead body. In such a situation, the dead body without removal of organs, is destroyed either by burning or burial. It has also given rise to a vexing question as to why such human organs should not be utilized for transplants to a needy patient, rather destroying them. The ethical debate in this context also results in two opposing views. In China where the capital punishment rate is very high, organs are procured from the dead bodies of executed prisoners. Eventually bowing down to the international pressure, it has decided to impose a moratorium on such practice without any dead line. the problem is further aggravated by the fact that the concept of death itself is in a muddle. The irreversibility criterion for legal death does not admit any precise definition. It tends to change with the advancement in the sphere of bio-technology.

Another vexing issue is the notion of distributive justice, which aims at a fair distribution of social benefits and imposition of burdens. For a moment presume that organs are available. The cost factor involved in a transplantation operation has its own say on the decision of an individual to undergo a transplantation operation. Given the very expensive nature of the operation, in a society divided by haves and have-nots, it will be a boon to the former, a mirage to the latter. If affordability plays a crucial role, the notion of distributive justice is put into oblivion.

The boom in the sphere of bio-technology has added fuel to the ongoing debate on the commercialization of human organs. The society is not contemptuous on the sale of replenishable body products like hairs, sperm, blood etc., as though the debate on creating an organ market continues, a spectacular surge in bio-technology has made a cross section of the society to have a rethinking on the subject. Bio-technology has found out new uses and needs of bodily tissues to develop micro-organisms, which are patentable. It has generated a very lucrative market for cells and cellular by-products, making people to think of commercialization of other parts of the body which are visible to human eye.

CONCLUSION

The principle of bodily autonomy confers a person right of self-determination to determine what shall or what shall not be done with his body. Recognizing this principle, law permits the living donors as well as deceased donors to authorize removal of their human organs only for therapeutic purpose. As a matter of public policy a reasonable restriction is imposed on the right of self-determination prohibiting commercial dealings in human organs. Allowance for removal of human organ for therapeutic purpose seeks to serve the public interest to provide organs to the needy patients for the purpose of transplantation. Like, in some other jurisdiction, under Indian Law, a bifurcation is made between donation of human organs to close relatives and others, by a living donor. Donation of organs to close relatives does not require

permission of Authorization Committee, but such permission is required in case where the recipient is not a close relative. The reason for such insistence is to check any possibility of commercial dealing in human organs. But how far the authorization committee has been successful in curbing commercial dealing in human organs is a questionable issue. In such a situation, generally, the Authorization Committee relies merely on the declaration of the living donor as to his special attachment or love and affection towards the recipient what prompted him to donate organ, without probing into the possibility of exploitation and commercial dealing. Sometimes, whether removal and transplantation of human organs are undertaken in registered hospitals or not, it may not come to the knowledge of authorization committee at all. Law should come heavily on such unscrupulous people to curb backdoor illegal transplants.

In spite of prohibition on sale of organs, it is a naked truth that illegal organ trading is continuing unabated especially in developing and underdeveloped countries. These countries have become the organ harvesting haven. The poverty stricken people caught in vicious debt trap are compelled to sell their organs to seek emancipation from it or otherwise they may sell their organs due to economic constraints. These instances do not come before the courts at all. For example in Pakistan, 40 to 50% of the residents of a village have only one kidney, as they have sold the other to wealthy persons from the other countries. In India also, in Chennai and other places affected by Tsunami in Indian Ocean, many fisherman and their families who were deprived of their livelihood have sold one of their kidneys. According to medical science, a person can live with one kidney also. It is a matter of commonsense that heavy load falls on the remaining kidney. If that fails the donor has to pay a very heavy price. He cannot hope to procure one. Existence of only one kidney instead of two, itself is an evidence of some sort of disability. Moreover after the removal of one kidney the donor may develop post surgery complication. To quote a Tsunami affected woman aged about thirty, who sold a kidney "I used to earn some money selling fish but now the post surgery stomach cramps prevent me from going to work. Most kidney sellers have realized that they committed a blunder by selling their organs.

It follows from the above discussion that whether organ is sold or removed for therapeutic purpose as contemplated under law, its impact on the body of a living donor is the same. When a living donor fulfilling all the legal conditions comes forward to donate a kidney, care must be taken to see not only that he is a matching donor, but also that otherwise he is the most 'Capable donor', capable of withstanding the ensuing consequences. It is submitted that the expenses connected with removal should cover not only the medical expenses, but also in sufficient measure to provide for loss of earnings and post-operative care to the donor. Further it must be ensured that the donor makes an informed choice.

Law is not a panacea for all maladies. In spite of the existence a statute providing for prohibition on organ trading, as discussed above there are instances of trading. It is a well established proposition that ignorance of law is not excused. Most of the illiterate people may not be aware of the existence of the statute. Hence it is submitted that it is necessary to create a legal general awareness in the people regarding transplantation of human organs.

There is no dearth of laws in India. But the implementation aspect presents a very dismal picture. There are many laws, which are implemented in letter, but not in their spirit. The Transplantation of Human Organ Act is not an exception to this, which can be very well discerned from the fact of organ trading that has taken place in a few parts of the country. Therefore it is submitted that the Act must be implemented not in its letter, but in its true spirit.

The Indian law specifically does not contemplate 'paired exchange' type of organ donation. It can be understood from the provisions of the Act that it falls into a category of organ donation by a living donor to a recipient who is not a close relative, which requires permission from the Authorization Committee. But the recipient is the close relative of a donor who donates his organ to a matching recipient that his relative in exchange donates the organ to the first recipient. Taking into consideration, the beneficial nature of the transaction, it is submitted that it may be kept outside the permission requirement of the Authorization Committee and the Act may be amended to include specifically such type of organ donation.

Organs can be harvested from the dead bodies in accordance with the legal parameters. Dead bodies cannot be abused to procure organs. It should be noted that China where the capital punishment rate is very high, invited wide criticism from international communities for harvesting organs from the dead bodies of executed prisoners. Keeping in mind the increase in number of patients awaiting transplantation in anticipation of obtaining organ, a situation which India also may confront in near future, the system of encouraged voluntarism which presents an option to a person to donate his organs after his death, may be introduced after taking necessary safeguards to plug out the loop holes in the system. To achieve success in this regard serious campaigns need to be organized to motivate the people to pledge their body and organs after death. In addition to that required request protocol system observed in some jurisdiction, under which it is mandatory for all major hospitals to request the next of kins of the deceased for removal of organs from the dead body of the deceased which sometimes may fetch organs, can be given a serious thought.

One serious obstruction in harvesting of organs from brain dead bodies is non-consensus among the medical fraternity regarding irreversibility criterion which is becoming complex with advancement in the field of technology. As it is a serious problem, no fool proof answer can be suggested. As a temporary solution steps must be taken to arrive at a consensus regarding irreversibility criteria as per the prevailing scientific knowledge with a flexible mind to accommodate any future development.

Allowance is made under Indian law for removal of organs, from unclaimed dead bodies lying in a hospital or prison. To a very meager extent, it may help harvesting of organs as such situations do not occur in big proportions. However the legal provision depicts a pragmatic approach.

The introduction of a centralized system with a network of transplantation centres and organ procuring centre, as found in some jurisdictions, may be introduced. To enable the patients requiring transplants to register their names in the registry, a registration system must be introduced. The ends of distributive justice may be attained when an objective criteria is adopted in supplying the available organs. As an objective criteria priority must be given to the patients on the basis of first come first serve. Even though organs are available, some times poverty stricken patients cannot afford to have transplantation operation. It is submitted that state has to bear the cost of operation of such patients.

Conception with the sole purpose of obtaining organs for other children awaiting transplantation should not be allowed as it results in violation of the basic human rights of the child so born.

There are two opposite views regarding establishment of a legal market for organ trading one for and the other against. The advocates of first view strongly argue for legally allowing people to sell their kidney. Their argument is that if American between 19 and 65 are allowed to donate one kidney, the national waiting list for kidney transplants would disappear and donating kidneys is no more risky than surrogate motherhood. Iran became the first country to legally allow people to sell their kidneys. Justification for establishment of a market for organ trading to fulfill the current needs of organ supply should be weighed against it's for reaching future consequences. Hence, as a matter of policy organ trading should not be allowed. It is accepted that there is shortage of organs. The gap between demand and supply must be bridged taking recourse to the justifiable means discussed above. The means adopted must be compatible with the end.

It may be true that the patentability of micro-organisms has changed the thinking process of a cross section of the society to make an allowance for sale of organs like tissues and cellular products. But sale of tissues and cellular products cannot be a valid justification for allowing sale of body parts which cannot be replenished by the body.

The above discussion manifests that the concept of organ transplantation has given rise to controversial legal and ethical issues, which must be properly addressed. An international consensus is the need of the hour to address these issues to make the law relating to transplantation of human organs more vibrant and sensitive.

¹Transplantation of human organs is not a novel concept. Evidence of it's antiquity can be found in Rig-veda. (1500 B.C.), which speaks of replacement of head of Lord Ganesha by an elephant's head. In the Christian traditions Saints Cosmas and Damian, are popular for replacing the leg of a true believer by the leg of a dark skinned moor. The Indian Surgeon Sushrutha in the second century B.C. used autografted skin transplantation in nose reconstruction rhino plasty. See for a discussion on organ transplant US. History Encyclopedia. Transplants and organ donation, <http://www.answers.com/topic/organ-transplant>.

² Ibid.

³ Sec.2 of the Transplantation of Human organs Act, 1994

⁴ Ibid.

⁵ As body can replicate blood, semen & other serums, they do not fall with in the ambit of the definition of human organ.

⁶ See supra note n.3

⁷ See supra n.1 at p.2

⁸ Even though the brain stem dead donors form the majority of the deceased donors, the donation after cardiac death is on the increase. But the outcome of organs from a brain dead donor is better than the organs from cardiac dead donor. Given the scarcity of human organs, a suitable organ from the body of a cardiac dead donor may be taken for transplantation.

⁹ See supra note no.1 at p.19

¹⁰ The other consideration may be any property or anything which has an economic value.

¹¹ It is prohibited by law in some jurisdictions.

- ¹²It is common in many countries for which India is also not an exception.
- ¹³For a discussion on commercial dealings in human organ see infra.
- ¹⁴That is people move from one country to another country where human organs are available and transplantation is done without any legal restriction.
- ¹⁵Nathan, "Medical Negligence", London, (1957).
- ¹⁶Due to International pressure, concerns raised by the media in China and objections by world medical Association China agreed to put an end to this practice without any deadline.
- ¹⁷See Supra n. 1 at p.11
- ¹⁸Bolam v.Friern Hospital Committee, [1957]2 All E. R. p.118
- ¹⁹Ibid
- ²⁰Otherwise a medical practitioner invites liability for medical negligence.
- ²¹See the preamble. It was the notorious kidney racket of 1990's, as an eye opener paved the way for the enactment of the Act.
- ²²Sec.3, THO Act
- ²³Ibid.
- ²⁴Near relatives mean father, mother, brother, sister, husband, wife, son & daughter.
- ²⁵Sec.9 THO Act.
- ²⁶Ibid.
- ²⁷Id at sec. 2
- ²⁸Id at sec.3
- ²⁹Ibid.
- ³⁰Ibid. In case of a living donor, his consent is necessary. For a discussion on consent for medical procedure, see, Nathan, "Medical Negligence", London (1957); Joseph H.King, "The Law of Medical Malpractice:", St.Paul Minn, West (1972).
- ³¹Ibid.
- ³²Ibid.
- ³³Id at sec.6
- ³⁴Id at sec.4
- ³⁵Id at sec. 5
- ³⁶Id at sec.5
- ³⁷Id at sec.6
- ³⁸Ibid.
- ³⁹Id at sec.19
- ⁴⁰For a discussion on informed consent see the article of the same author, B.S.Venugopal, " Informed Consent to Medical Treatment"; J.I.L.I., 2004 (v.46 No.3) pp 393-417; Gerald Robertson, "Informed consent to Medical Treatment", 97LQ Rev.102 (1981).
- ⁴¹See sup.n.21 sec.12
- ⁴²Id at sec.14
- ⁴³Id at sec.16
- ⁴⁴Id at sec.18
- ⁴⁵Id at sec.15
- ⁴⁶See supra n.1 at pp.5-7
- ⁴⁷No.70501(ILL. Filed, Dec.20, 1990)
- ⁴⁸Sec.1
- ⁴⁹Id at sec.2. Natural parents, children brothers and sisters whole or half blood, brothers and sisters of the whole or half blood of either of his natural parents and natural children or his brothers and sisters of the whole or half blood or either of his natural parents are considered as genetically related to the recipient.
- ⁵⁰Id at sec.3
- ⁵¹See supra n.1 at pp.10-11
- ⁵²Deaths resulting from non-accidental causes are included under the amendment Act, 2004
- ⁵³See supra n.1 at p.24
- ⁵⁴Ibid.
- ⁵⁵For a discussion on paired exchange, see supra.
- ⁵⁶See n.1 at p.24
- ⁵⁷Id at p.25
- ⁵⁸Article 3 & 4 of Universal Declaration of Human Rights. Article 3 contemplates civil rights which include

right to life and liberty. Article 4 prohibits slavery and slave trade.

⁵⁹ Articles 3 & 29 of Universal Declaration of Human Rights. Art.29 stress the duties and responsibilities which an individual owes to the community.

⁶⁰ See n.1 at p.24

⁶¹ Jayanthi Natarajan, “Let one Hart for me and you, ethically”, Deccan Chronicle, Sept.29, 2008.

⁶² See n.1 at p.20

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ Id at p.20

⁶⁶ Ibid.