

BODY DONATION AND ITS ETHICS

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ABSTRACT:

Body donation is the donation of whole body after death for medical research and education. In ancient India *Sushruta* dissected human bodies. *Andreas Vesalius* was first medical student to dissect a human cadaver. According to Anatomy act 1948, it provides for collection of dead bodies for teaching purpose. Any individual can donate the body and any hospital/medical institution approved by state government can accept the body for medical education and research. The willingness form can be filled by donor for body donation. Also the donated body can be rejected by institution depending on certain criteria's like if amputation had occurred in the body or the body is of medico legal case. Also certain factors like love for own's body or religious beliefs also prevent body donation. The situation of less number of body donations can be improved by awareness campaigns, paper and electronic media.

Key Words: Body donation, dissection, donate, human cadaver.

INTRODUCTION:

Body donation is the donation of whole body after death for medical research and education. It is useful for understanding the human body and for advancing science. Voluntary Body Donation is a program wherein the general population can will their bodies to serve the purpose of medical education and scientific studies. Hence, whole Body donation is the need of the hour.

Medical colleges use the whole embalmed bodies to teach anatomy. Anatomy is the study of structures of human body and is one of the basic and important subjects to be studied by medical students. With improvement in technology many assisted models have developed in the form of mannequins and simulation but none of these can be a replacement to a real cadaver. Each cadaver is like a new source of knowledge as many variations can be identified which could help the clinicians. These donations help the surgeons to experiment innovative surgical skills, thus giving them an opportunity to explore in a realistic manner^[1]. With the rising number of medical colleges and scarcity of cadavers Voluntary Body Donation is definitely a savior and a ray of hope for the betterment of medical science.

In ancient India, *Sushruta* dissected a number of human bodies in about 500BC^[2].

Andreas Vesalius 1514-1564, was the first medical student to dissect the human cadaver and also continued with it even as a professor^[3].

In United States dissection became popular in late 18th and early 19th centuries, demand for cadavers exceeded the supply so the slave bodies and thefts by grave

robbers met the demand^[4]. Anatomists would even dissect members of their own family. William Harvey, the man famous for discovering the circulatory system, was so dedicated that he dissected body of his father and sister^[5].

In United Kingdom, the murder act 1752 permitted the use of corpses of executed criminals for dissection. Anatomy act was passed in UK in 1832 which permitted the use of unclaimed bodies for dissection^[6].

In India, Anatomy Act was enacted in 1948. Accordingly it provides for collection of dead bodies for teaching purpose. If death occurs in a state hospital or in a public place within the prescribed zone of the medical institution provided the police have declared a lapse of 48 hours with no claimants for the body and could be used for medical purpose^[7].

In Maharashtra, the Anatomy Act was adopted as Bombay Anatomy Act 1949. It was further amended by Legislative Council in 2000 to permit donation by a person before his death to a hospital or medical institution for medical education and research^[8].

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WHO CAN DONATE AND ACCEPT THE BODY

No age, sex, caste, religion or socioeconomic status prevents an individual from body donation. If any person, either in writing at any time or orally in presence of two or more witnesses (may be one of them is a next kin/close relative), prior to his/her death has expressed a request to donate the body for medical education or research purpose. The person lawfully in possession of the body can donate the body to authorized medical institution provided no any other relative objects it ^[8]. Any hospital/medical institution approved by state government for medical education and research can accept the body.

PROCEDURE FOR BODY DONATION

- The person willing to donate his/her body can identify a medical institution/organization that he/she would like to donate the body. They can look up these organizations online or call them or ask what research they do with cadavers and decide to donate the body.
- The willingness form available at approved institution should be filled, many of which are available online. This form must be signed in the presence of two legal witnesses. It is recommended that at least one of these individuals be a next kin/relative.
- The body donation plan should be discussed with the rest of the family, so that they are aware of the organization with which the donor have signed up with and so after death of the donor, they can call the medical institution/organization as soon as possible so they can arrange for transportation of the body. Or the next kin/relative should bring the body to the approved medical institution/organization as early as possible after death. The medical institution/organization will arrange for death certificate. Body can be donated even if the willingness form is not filled.
- After the body has reached the institution all the legal procedures are completed and after that the body is embalmed and used further for dissection or research purpose.

CRITERIA FOR REJECTION OF A BODY

Any individual is liable for whole body donation, besides of their sex, caste, age. But, as the body is to be used to study the normal structures of human body, some of the donated bodies are not accepted if,

- An autopsy was conducted.
- Amputation occurred.
- The deceased had certain contagious / infectious / communicable diseases or was emaciated.

- Body of a medico-legal case (e.g. homicide, suicide)
- Decomposed bodies.
- Body with organs removed. (except eyes)

FACTORS PREVENTING BODY DONATION

Though body donation is a major source of cadavers, the number of people willing to donate body is meager^[9]. In India most important reason for less number of body donations are spirituality, religious beliefs and lack of awareness. There is a dilemma among the people that the body may not be treated with dignity and respect^[10]. Medicos cannot accept the concept of dissection of their own body. Other reasons are love for own body and fear that the body may not be used for right cause. It has also been noted that though anatomists encourage body donation, their attitude towards body donation is not well known. Organ donation is preferred over whole body donation not only by general population but also by medical fraternity^[11].

FACTORS AFFECTING BODY DONATION

Some of the factors affecting body donation are awareness about body donation, age, sex, education, occupation, attitude about religion, spirituality.

Armstrong in 1996 noted that there is a higher willingness to donate in younger age group than the older ones in Australia^[12]. In a study of households of Maryland Boulware et al (2002)^[13] observed that older age group is negatively associated with willingness to donate cadaveric organs. Also the Males are more inclined towards body donation than Females^[13]. Boulware et al (2002)^[13], Alashek et. al. (2009)^[14] educated class is more prone for body donation than uneducated individuals which are less willing for it. Also the donors concern regarding their religious beliefs and spirituality is responsible for low cadaveric donation.

MEASURES TO IMPROVE BODY DONATION

The various reasons listed above for less number of Body Donation should be taken care of. Awareness about Body Donation should be raised and mindset of society towards it should be changed. Body donation programs should be designed and its centers should be made mandatory for all medical colleges. Awareness campaigns should be started using electronics, paper media and broad publicity by political and religious leaders, popular public personalities.

The NGO's and social workers can play an important role in this field. The holy word 'Donation' (*daan*) may be stressed during these campaigns. The donors and their families may be given social honors, recognition and appropriate incentives like health care facilities.

Donors should be assured that their bodies will be treated with respect and dignity and after dissection the remains of their body will be cremated and the ashes will either be disposed of by the medical institute or returned to the next kin/near relative for other disposal if so desired. To ensure respectful treatment to cadavers from students, the invaluableness of donated bodies and feelings of donors behind body donation should be stressed in students mind. Proper guidance and assistance about body donation should be easily available for willing people. Appropriate counseling of the next kin of the donor to honor the will of donor should be done. The next kin also needs to be convinced for donation of the body of their near ones. Some medical colleges in India receive cadavers more than required, so appropriate legal measures should be undertaken to permit the transfer of cadavers from one state to other as well as from one medical college to other. Inter college cooperation should be emphasized.

CONCLUSION:

Whole body donation is a major source of cadavers used for the purpose of dissection, medical education, scientific studies and research. Most of the people are unaware about the concept of body donation. Efforts should be taken to make people aware of importance of body donation. Body donation programs should be designed and body donation centers at every medical college should be made mandatory.

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