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BODY DONATION AND EFFECT OF AWARENESS CAMPAIGNS IN MUMBAI REGION

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ABSTRACT

The body donation is honorable and gracious act which helps society in many ways. The study of anatomy is important and done by dissection of human bodies. Anatomy is the subject which deals with structure of the human body. Anatomy is important basic subject for medical students, both Under Graduate (U.G.), Post Graduate (P.G.) and teaching faculties for conduction various workshops. Cadaveric dissection remains an important tool for learning anatomy. In Maharashtra the Anatomy Act was adopted as Bombay Anatomy Act 1949 which helps to obtain the bodies in medical institutions. It is said that, the demand for cadavers remains strong, and numerous ideas have been voiced to augment the supply. In Mumbai region various non-government organizations help in body donation by arranging various awareness camps. In this article the data of Grant Government Medical College is used to the effect of awareness camps on body donation. If we go through the data, it can be clearly said that due to awareness there is increase in numbers of body donation. In this article, the brief of history, the various anatomical acts, the tools to increase body donation, importance of body donation and some steps are suggested to create awareness in common people regarding body donation. The decision to donate one's body for anatomical learning and research is one, which should not make hastily but should be based upon sound reasons and convictions.

Key Words: Body donation, Cadaveric dissection

INTRODUCTION

Donation means something given for charity purpose to benefit a cause. According to Delmas (2001), donation is a clear will made by people free and informed. At Paris in 1953 a body donation center was created to obtain bodies for dissection. (1) Anatomy is the subject which deals with structure of the human body. Anatomy is important basic subject for medical students, both Under Graduate (U.G.), Post Graduate (P.G.) and teaching faculties. Aside from bodies being dissected in the anatomy classes, cadavers are also used for practicing surgical skills and developing new technique in various hands-on workshops. (2)

Various courses which come under Maharashtra University of Health Sciences like Bachelor of Medicine Bachelor of Surgery (MBBS), Bachelor of Dental Surgery (BDS), Ayurved, Homeopathy, Unani, Physiotherapy and Occupational therapy in which thousands student take admission every year. They have to study Anatomy in first year.

Dissection on human cadavers is best method of learning Anatomy, which remains principle teaching tool.

HISTORY

According to Indian mythology the first instance of Body Donation was that of Rishi Dadhichi. He donated his living body (during his life time) to Devraj Indra, for preparation of auspicious weapons out of his bones. These pious weapons defeated the enemy Daitya Vritasur. History of body donation can be traced long back in the ancient India, Shuhruta dissected human body in about 500 Before Christ (BC). In Europe the concept of human body dissection was started in 15th century where barber-surgeons used to demonstrate human structures at the professors command. Andreas Vesalius (1514-1564) was the first medical student to dissect human body and also continued as Professor. (3) In late 18th and early 19th centuries United State Medical Education was used bodies

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of slave and theft by grave robbers to meet demand. (3) In United Kingdom, the Murder Act 1752 permitted the use of corpses of executed criminals for dissection. However due to increased demand for cadavers for medical science, the Anatomy Act was passed in Massachusetts of America in 1831. In 1832 Anatomy Act was passed in United Kingdom (U.K.), which permitted the donation of the body of the deceased by his kin. (4)

Current Scenario in Mumbai

Body donation was started in 70s and gradually becomes popular. Pioneer work was done by 'Shishu Vihar' a social organization in Bhavnagar at Gujarat. They motivate people to donate blood during lifetime and bodies after death. In 1938 blood donation and eye donation in 1968 was started by this organization.

Non-governmental organizations (NGOs) helping in Body Donation at Mumbai

1. Manav Jyot, Khurana Bhavan, Mulund, Mumbai - 400 080.
2. Snehada, Tagorenagar, Vikroli, Mumbai - 400 083.
3. Dadhichi Mandal, Vishnunagar, Dombivli, Mumbai - 421202.

These organization gives forms to the people for body and eye donation with instructions to fill, collect from them and send them to the Medical Colleges where body donation committees has been formed. The college registers their name, sends them a form with instructions for action at the time of death and one identity card which helps them to bring body. Also the college issues a letter of thanks.

Anatomy Act

In India, the Anatomy Act was enacted in 1948 to provide unclaimed bodies of deceased persons to hospitals and medical and teaching institutions for the purpose of anatomical examination and dissection. It has been uniformly adopted in all its states. (5)

In Maharashtra (old Bombay State) the Anatomy Act was adopted as Bombay Anatomy Act 1949. According to section 5(1) and (2) of this act, 'Where a person under treatment in a hospital whether established by or vesting in, or maintained by the State Government or any local authority, dies in such hospital or a person in a prison and his body is unclaimed, the authorities in charge of such hospital or prison shall with the least practicable delay report the fact to the authorized officer and such officer shall then hand over the unclaimed body to the authorities in charge of an approved institution for any therapeutic purpose or for the purposes of medical education or research including anatomical examination and dissection'.

The section 5(3) of the law states that 'Where a person having no permanent place of residence in the area where his death has taken place dies in any public place in such area and his body is unclaimed, the authorized officer shall take possession of the body and shall hand it over to the authorities in charge of an approved institution for the purpose specified in sub-section (1).

The act was further amended by the state legislative council in 2000 to permit donation before death of one's body or any part thereof, after death by a person, to a hospital, and medical & teaching institution for therapeutic purpose, medical education and research. (6)

Whereas the Punjab anatomy Act 1963 makes provision for supply of bodies of deceased person to hospitals medical teaching institutes for therapeutic purposes or of anatomical dissections, surgical operations and research work. (7)

The Mysore Anatomy Act, 1957 later amended as Karnataka Anatomy Act 1998 by Karnataka state defines 'unclaimed body as the body of a person who dies in a hospital, prison or public place or a place to which members of the public have access, and which has not been claimed by any person interested within such time as may prescribed.'(7)

Who can donate the body?

Anyone 18 years of age or older can donate his or her body. If it were known that the deceased had wanted to make a bequeathal of their body, but never got around to filing the paperwork during their lifetime, the gift (donation) could be made by their relatives after their death (unregistered).

MATERIALS AND METHODS

Anatomy is very important subject for all medical and paramedical students. The bodies mainly used in the Grant Government Medical College, Mumbai are from body donation. The ratio of the students: cadaver in this college is 1:12. The data is collected from Grant Government Medical College Mumbai since 2003. The yearly registration and received bodies. Again it is divided in male and female bodies received.

OBSERVATIONS AND RESULTS

The body donation is important for medical education, the number of person who chose to donate body remains low because of lack of awareness. The present study is under taken to show the results of increase in numbers of body donation as results of increase in numbers of body donation awareness camps. If we compare the data of

Grant medical college year wise there is increase in the number of persons who wanted to donate the body and numbers of received bodies

Table 1: Year wise number of registrations and bodies received.

Year	No. of Registrations	Bodies Received
2003	157	32
2004	214	29
2005	195	43
2006	261	46
2007	283	42
2008	253	37
2009	283	47
2010	619	80
2011	432	66
2012	412	60
2013	426	55
2014 till date	162	19

From table 1, we can clearly say that there is increase in the numbers of body donation regarding registrations and body received

Table 2: Year wise received bodies male and female

Year	No. Bodies Received (Male)	No. Bodies Received (Female)
2003	25	7
2004	24	6
2005	33	10
2006	34	12
2007	36	6
2008	24	13
2009	40	7
2010	60	20
2011	55	11
2012	42	18
2013	41	14
2014 till date	15	4

Table 2 is showing the comparison between the male and female in number of bodies received. Male bodies are received more as compared to female bodies.

DISCUSSIONS

Body donation is very legal and generous act. Supplying human cadavers is left to the responsibility of others, notably the anatomy course instructors or school administrators. Along the side medical education providers, a large number and wide range of other users are also trying to secure cadavers for their own needs. A good cadaver is one, not obese or evidently not diseased. (8) It is said that, the demand for cadavers remains strong, and numerous ideas have been voiced to augment the supply. As an illustration, there is an ongoing debate about the impact of using financial incentives for donors or their families to encourage anatomical donations. (9) The situation is equally affected in India, too. In a survey carried out by Shrikant A. Rokade et al in some of the medical colleges in Maharashtra (India), a gross insufficiency of cadavers was found in 90.90% of medical colleges. These include not only the colleges run by private managements but also those run by the state and central governments. 18.18% of the surveyed colleges did not receive a single cadaver by donation in last 5 years. In 63.63% of these colleges, the numbers of cadavers available were less than half of the requirement during 2006 to 2010. (10)

There has been lot of resistance towards body donation. For the creation of awareness we need help of NGOs to organize the body donation camps. These camps are interactive and peoples should be answered thoroughly till they satisfied. The 'holy' dimension of the word 'donation' may be stressed during these campaigns. Some authors like Alashek et al (2009) suggested that the public educational campaigns should be coordinated with religious leadership. (11) Handbills written with body donation information also distributed in these camps. We can use other influential mediums like television, radio, newspapers. Give body donation information through Ganseh mandals / Navrathri mandals.

Suggested steps to promote body donation

Treat the body with utmost respect in front of the relatives by careful handling. Issue the body donation certificates to next of kin to express gratitude towards them for donating body. Provide assistance to relative in medical aid when they visit the hospital next time. Don't delay them for completing the formalities. Don't discourage them by saying there is no place to store body etc instead accept the body and keep it, the body may be transferred to any other college who needs. Provide proper and immediate storage facilities for preservation of the body some medical colleges tell the relatives to get body only during working hours and to preserve the body in private cold storages thereby causing financial burden to the relatives. We should give public recognition to the motivators who help in body donation.

CONCLUSION

The body donation is the ultimate gift to fulfill one's life. It is charitable and altruistic for those who want to make use of their body even after death. These donors will help the medical students, teaching staff and practicing doctors for learning and research. Donation of the bodies after death should be encouraged and people should be motivated to make this a habit.

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