

## Importance of Anatomy Act & Body Donation in Teaching and Learning of Medical Study

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### Abstract

Anatomical act means act for supply of unclaimed dead body to authorized medical teaching institute for purpose of dissection and to knowing internal structure of human body because anatomy teaching become perfect by the dissection of the dead body. Anatomical act also related with body donation (donated body itself in living state) body donation is defined as act of giving body after death for medical education and research purpose. Cadavers/donated bodies form a principle teaching tools for anatomist and to teach gross anatomy. Practicing of surgical step over cadaver prior to operating a living patient is a good mode in surgical operation. In this article source of unclaimed body, anatomy act rules and regulation regarding handling of unclaimed body are discussed

**Keywords:** Anatomy; Anatomy Act; Body Donation; Unclaimed Body; Cadaver.

### Introduction

Anatomy act 1832 (2 & 3 will. IV C.75) is an act of parliament of the united kingdom that gave free license to doctors, teachers of anatomy and bonafied medical students to dissect donated bodies. It was enacted in response to public revulsion act illegal trained corpses.

Anatomical act in Indian context – in India anatomy act was enacted in 1949 (29 September 1949).

In this act - anatomy means human anatomy, body means a dead human body, teacher of medicine means and includes any person who is employed or engaged as a professor or teacher of anatomy, pathology, medicine, surgery of obstetrics in any college of anatomy established under this act. This act have been uniformly adopted in all state of India.

*Anatomy* – means – by cutting human body we deal with internal structure of body

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Cutting of human body- means – *dissection*

Dissecting of cadaver is base for teaching of anatomy.

In ancient India *Susrut* [1] dissect human bodies. Exact knowledge of internal structure of human body obtained only through dissection of dead body.

In past there is very few medical college. But with time medical institution increase in India. So demand of cadavers for dissection increase.

So for fulfill demand of cadaver in medical institute anatomical act passed/declared by various state of India.

Most person even medicos are not aware to the anatomical act, its legal process, rules and regulation. So by this article we are just trying to set forth of anatomical act to all.

### History

Anatomical act is act of state level end published in the state government gazette.

In India anatomical act was first enacted in 1948 in Maharashtra (Bombay anatomical act 1949)[2].

According to act if death are occurs in a state hospital or public place within the prescribed zone of medical college, then dead body is collected for medical college (for teaching purpose).

If police found any unclaimed body and if up to 48 hours no one claimed for this body then this body handover to medical college for teaching.

Delhi anatomical act (1953) [3] proved for supply unclaimed body of diseases person to medical teaching institute for purpose of anatomical examination and dissection. It also provides a procedure for disposal of unclaimed bodies .this section shall come in to force at once.

The Punjab anatomical act (1963) [4] passed for supply of bodies. According to this act unclaimed dead bodies in hospital, prisons, public places could be used for teach in medical institute.

Mysore anatomical act (1957) which amendment as Karnataka anatomy act [5] in 1998 effected by Karnataka state defined unclaimed body .

Gujarat anatomical act - 6 April 2011.

Now a days Maharashtra anatomical act(2014) taken as reference in all the state .

#### *Anatomical act applied for-*

1. Supply of unclaimed bodies for appropriate institution.
2. Body donation by a person before death to the medical institution for teaching and research purpose .

#### *Unclaimed body*

Means body of a deceased person who dies in a hospital prison, public place, whose body has not be claimed by any near relative/ friends with in prescribed time period.

#### *Near Relative*

Means any of following relative of deceased namely wife /husband, parents, son, daughters, brothers or sisters and included any other person who is related to the deceased

1. by linear consanguinity with in three degree
2. or by collateral consanguinity with in six degree, or
3. by marriage with any of the relative aforesaid.

Linear consanguinity & collateral consanguinity assigned in Indian succession act 1925 and degree of relationship shall be computed in manner laid down in that act.

#### *Approved institution*

Means a hospital or a medical teaching institute approved by state government.

#### *Authorized officer (known as coroner)*

Authorized officer is government officer who confirm and certified death of an individual with in a jurisdiction.

A coroner also conduct or give order to an investigation for manners and cause of death.

When patient dies under treatment in government hospital then authority in charge of hospital should report the death to authorized officer/ coroner to that area.

If a prisoner dies in a prison then authorities in charge of prisons should report the death to coroner of that area and hand over unclaimed body to approved institution authority. When any unclaimed body found in any place the authorized officer can hand over this body to medical teaching institute. In any suspicious death/murder/ poisoning/suicidal/hanging authorized officer self forward unclaimed body to police officer of court of criminal procedure.

If there is any doubt that person who claimed are relative/family member of dead body telling lie then authorized officer should referred to this case to the executive magistrate. And his decision will be final if such decision take time then authorized office would be responsible for take care and preservation of dead body from decay or destroy.

If any person orally or in writing has express request of body donation in his/her last time period of illness or at time of death in presence of two or more witness then after his/her death, dead body shall be donated to medical institute according to as his/her will.

Death certificate (which state cause of death) signed by registered medical practitioner attending the deceased or registered medical practitioner who called after the death of deceased person is necessary. Death certificate always should be delivered along with dead body to authority in-charge of an approved institute. Without death certificate authority in charge will refused to take dead body in his institute.

The authority in charge of that institution on receiving dead body, with in 24 hours transmit a copy of such certificate (body donation certificate) to the executive magistrate or officer appointed and give in writing details of date, time, place when and where dead body was received, date and place of death, name, age, gender of body.

Any dead body if exhaled from anatomical examination due to any cause then under anatomical act dead body placed in a coffin and

criminated. A certificate of crimination should be transmitted to executive magistrate or officer in charge.

Any person if no follow rules of anatomical act should be punished with fine up to rate 500. Or officer and servants of police, medical and public health department, employee of local officer shall be bound to take all responsibility to assist the authority and officer authorized under this act. All officer authorized to under this act shall be considered as public-servant.

## Discussion

### *How a Institute Registered under Anatomical Act*

1. Institution should be a CCIM, AYUSH approved, government recognized and affiliated by university for medical study.
2. Such institute may be educational or a research center.
3. Curriculum of study should have dissection part or requirement of a dead body for study.
4. They should apply for permission of anatomical act to the secretary and director of state government under medical education and drug department.
5. A notification is passed to institution by government that declared approval for anatomical act of that institution (Medical teaching or research center).
6. Institution should take no objection certificate (NOC) from civil surgeon and medical health officer or municipality and police commissioner.
7. This government notification should be published in state government gazette.
8. After publishing government notification in state government gazette, institution (Medical teaching or research center) should try to approach for demand of dead body to coroner court with undertaking that body will used for study purpose.

### *Importance of Anatomical act*

As there were number of medical college increases, demand of unclaimed body increase day by day. It is very necessary to maintain/enacted anatomical act at national level to fulfill the demand of (unclaimed) body in medical teaching institution or research center by which there teaching quality and research work get improved. Unless institution have a legal

permission of anatomical act by a government authority none institution can give permission to student for dissect a dead body for study/research purpose. In that case it is an offence to dissect or use a dead body.

Due to anatomical act unclaimed bodies are used legally in medical institute and after dissection/used body are criminated properly according to social and religious costumes. But burial dead body in a dump pit should be preferred because by this we collect bones of dead body after some months which will be used in anatomy study .

## Body Donation and Anatomical Act

Body donation is a generous and unselfish act for those who wish to be usefull to the living after death<sup>[7]</sup>. Donor will help medical student learning and research [8].

*Patnik (2002)* suggested that one should have the habbit of donation voluntary the body after death. Voluntary donation of body is not much different from donation of organ (eye/kidney/live). Only a wish is needed. Decision of any individual to donate his / her body for anatomical examination is a vital contribution toward understanding and advancement of medical science.

Peoples should have a motivation to donate there body after death. According to anatomical act registration of individual for their will of self body donation is must prior to his/her death. Willingness form (*body donation form*) available at approved institution or college.

Body can be donated even if 'willingness form' is not filled prior to death, according to wish of person getting die, his/her family member can donate after written consent of them.

Body now preserved by embalming procedure and kept in a preservative formalin (most commonly) in a registered institute under anatomical act.

In the institution body is used for study purpose under all legal rules, regulation and ethics related to anatomical act. After using of dead body incriminated or worried in a dump pit for a purpose of collection of bones (skeleton) for anatomy study.

### *Body Unacceptable for An Anatomical Donation*

1. Extreme obesity
2. Autopsied body
3. Decomposed body

4. Extreme emaciation
5. Death from contagious or communicable disease eg. HIV,
6. Suicide or homicide
7. Removal of organs and tissue (except for eye/corneal donation).

Acceptances or rejection of a dead body is a decision made at time of donation by medical institution authority. Under the law institutions have right to reject a body donation for any reason.

#### *Importance of body donation*

For student and researcher body donation has proved as a great opportunity to study the human body. Computer program, text book can not replicate the hands-on methods of teaching human anatomy. In teaching of human anatomy no substitute for human body, learning through dissection of human cadaver is far superior and very different than the learning by text book/computer program. The use of human body in medical education and research is in tradition since a very old time and represent a foundation of operative surgery.

#### *Factors responsible for donor's attitude towards body donation*

Fennell and Jones (1992) reported that the most common reason for making the body cadaver is a very useful aid in medical science and gratitude to medical profession.

Sanner (1997) in a study concluded that if one is prepared to give body with in live, then another family/society member is also mentally prepared to give body after his death. The anxiety of disrespectful behavior towards cadaver was one of the reason for not donating bodies.

In a study Golchet et al. (2000) reported that many factors such as age, religion/culture/personality/views related to death and mortality, humanitarian concerns influence people's opinion toward body donation. Boulware et al. (2004) concluded that demographic and attitudinal factors were strongly related to willingness to whole body donation.

Sechirli et al. (2004) reported that although anatomists encourage body donation, but the attitude of anatomist toward donating their own bodies for dissection is negative.

Conesa et al. (2004) [9] studied influence of mass media—Television, press, magazines, radio, campaign about body donation information given by health/medical professionals extra etc toward body donation creates a positive mentality toward body donation in general public.

Cantarovich (2005) [10] studies that lack of awareness, religious uncertainties are most common factor due to which people cannot donate body. Government should encourage and promote voluntary donation of dead bodies. For this maximum awareness and education propagated in to general people. Importance and reward give who donate their body.

## **Conclusion**

Anatomical act help in fulfill the increasing demand of cadavers in medical teaching institution and research centers. By dissection on cadaver medical student learn anatomy and they become perfect surgeon by practicing surgical step on cadaver, prior to surgery on living.

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