

# Anatomy acts in India: a review

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## SUMMARY

The paucity of human cadavers for study of anatomy by dissection and the dark history related to this led to formulation of Anatomy Acts in most countries of the world. In India too, almost every state has its own anatomy Act with variable differences in the acts per state.

The objective of this article was to compare the Maharashtra State Anatomy Act which was the first Anatomy act formulated in India, with anatomy Acts of other states in India and to make suggestions regarding areas within the Acts that may need reformulation.

Details of the Anatomy Acts from different states of India and articles related to them were obtained after a comprehensive search of databases such as Pubmed, Scopus, medline etc. The obtained data was studied and compared.

The study suggested removal of “therapeutic uses of cadavers” from the jurisdiction of anatomy acts, and that all anatomy acts must allow for human body donation. While defining the unclaimed body, most Anatomy Acts failed to specify the time period within which the body may be claimed and also it was necessary to specify the age of person who may claim the body or give consent for body donation. The Anatomy Acts must make provision for transfer of surplus bodies from one Institute to another. The directives for disposal of the bodies

once utilized seem difficult to implement in practicality and need to be reformulated to adjust to the need of the modern times. The authors appeal for formulation of a central single Indian anatomy act applicable uniformly throughout India.

**Key words:** Anatomy Act – Body donation – Unclaimed body

## INTRODUCTION

### *History of Human body dissection for study of Human anatomy*

In ancient India human body was dissected by Sushruta in 500BC. He believed that for one to be a good clinician, one must first be a good anatomist (Loukas et al., 2010).

The history of body donation can be traced back to the puranas. Rishi Dadhichi donated his bones using which a “Vajra” was created by the Gods. Using this weapon “Vrutrasoor” a troublesome demon was killed (Rokade and Bahetee, 2013).

In the olden times using human body for dissection was frowned upon by religious law (Jacobs, 2013).

In 3rd BC in Greece, Herophilus conducted systematic human dissections (Ghosh, 2015). Thus physicians of ancient Greece gained information about human body and its health status. This culminated in establishment of school of Greek medicine in Alexandria where human dissection was the dominant means of learning anatomy. In those times also religious and esthetic taboos inhibited

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ancient physicians from dissecting human beings. Herophilus and his associate physicians were encouraged by Royal patronage, to overcome these deterrents to further the cause of medicine and science. With the death of the great Greek physician Herophilus, human dissections slowly petered down in the city of Alexandria. A new thought process came into being that discouraged human dissections, believing that human dissection had no scientific utility in Anatomy. With the burning of Alexandria, much of the stored knowledge and set practice of human dissection was lost (Ghosh, 2015).

Galen (130 AD) conducted dissections of animals believing their anatomy to be similar to that of humans. He established a medical system based on his theories and practices called as Galenism. This was the primary medical doctrine followed in Europe for several centuries (Risse, 1974).

In 12th century a revival of human dissection for study of Anatomy was observed. This was supported by the Church. However the bodies were to be dissected within authorized medical universities only (Ghosh, 2015).

In Europe, barber surgeons used to dissect human bodies to demonstrate various structures at the professor's command. Human dissections were done by Andreas Vesalius (1514-1564) while he was a student and also as a professor establishing its importance in the learning process of anatomy and future practice of medicine. In the period that followed, the importance of dissection of human bodies was established. With this came the increasing demand for cadavers which was met by slave bodies and grave robbers (Rokade and Bahetee, 2013).

To tackle these problems different countries came up with anatomy laws, for example the Murder Act of 1752 enunciated in Great Britain (Tarlow and Lowman, 2018). This Law allowed public dissection of executed prisoners for benefit of medical education. This however was unable to meet the demand for cadavers as many newer medical universities were being established which needed cadavers for dissection. Thus the dark period in history of anatomy continued with the practice of "body snatching". There seemed no correct way to provide bodies for anatomical study and research. This resulted in the Anatomy Act in 1832 in Great Britain (Irish Statute Book, 2018). This Act allowed physicians and surgeons legal access to unclaimed bodies for dissection purposes and also established the concept of voluntary body donation. Most other countries which were also pursuing studies of human bodies through various medical universities also came up with similar Laws (Ghosh, 2015).

Redies et al reported that during the Nazi regime some anatomical institutes received corpses which originated from executions. The study illustrated how easy it was to violate the dignity of the dead in

anatomical Institutes (Redies et al., 2005).

Thus human body dissection process for the purpose of study of human anatomy, has a history of being mired in various forms of crimes and therefore has had to be controlled by establishment of various Laws.

### ***Enactment of Anatomical Acts in the world***

In United Kingdom the Murder Act was enacted in 1752 wherein use of corpses of executed criminals for dissection was permitted (Tarlow and Lowman, 2018). But as with time the numbers of executions was reduced, demand for cadavers soon exceeded supply (Rokade and Bahetee, 2013). In Massachusetts of America the Anatomy act was passed in 1831 and in UK in 1832 (Irish Statute Book, 2018; Jacobs et al., 2015). Both the acts allowed the dissection of unclaimed bodies and also allowed the donation of human body by the next of kin allowing doctors, teachers of anatomy and medical students to dissect the donated bodies (Ghosh, 2015). This act was replaced by the Human tissue Act, 1961 (Legislation.Gov.UK, 2018b). This Law covered use of the unclaimed/donated body for anatomical dissection and research purposes as well as for tissue donations. Later a separate Anatomy act 1984 was enacted in UK and the revised Human tissue act of 2004 finally also covered organ donation activities (Legislation.Gov.UK, 2018a, 2018c). This history of Laws being enacted to cover body donation and later to cover tissue and organ donation can be observed in every nation with a good healthcare system such as USA, France, Italy etc. (Anatomy Act 1832, Human tissue Act 1961, Anatomy Act 1984, Human tissue Act 2004) (Irish Statute Book, 2018; Legislation.Gov.UK, 2018a, 2018b, 2018c).

### ***Enactment of Anatomical Acts in India***

In India the Anatomy act was enacted in 1949 and was then called as the Bombay Act (Bombay Anatomy Act, 2018). Most other states followed by enacting their own Anatomy Acts based on the Bombay Act. Thus in India almost every state has an Anatomy Act. Many of these Acts have undergone amendments over time. Also many States (but not all) have Anatomy Rules in relation to these Anatomy Acts.

### ***Aims and evidence acquisition:***

The aims of this research were to compare the first Anatomy Act formulated in India i.e. Maharashtra Anatomy act and its various clauses with the anatomy acts of other states of India. The study was also aimed to review other articles published on Anatomy Acts in India and outside India, and attempt to point to areas where anatomists were facing challenges in implementation of the act and if needed, give suggestions as to where the anatomy acts could be analyzed and reformulated.

A comprehensive search was carried out through the following databases: Pubmed, Scopus, Google scholar, medline using the keywords "Anatomy Acts" and "body donation". All State anatomy acts as well articles related to anatomy Acts in India were obtained. The material thus obtained was compared meticulously.

## RESULTS

Table 1 depicts the comparison of some of the important clauses of different Anatomy Acts within India (Archive India.Gov.In, 2018; Bare Acts Live.com, 2018; Delhi Anatomy Act, 2018; Go a printing Press.Gov.In, 2018; Govtpress.Odisha.Gov.In, 2018; Laws of India.org, 2018a, 2018b, 2018c, 2018d; The Maharashtra Anatomy Act, 1949).

## DISCUSSION

### *The Bombay/Maharashtra Act*

The Bombay Act was enacted in 1949 in Maharashtra state. It underwent several Amendments, latest being in 2014. It is now called as the Maharashtra Anatomy Act (Bombay Anatomy Act, 2018; The Maharashtra Anatomy Act, 1949).

The following segment describes the Maharashtra Act and also states the differences from other Acts in India.

**Purpose of the act:** The act provides for provision of unclaimed and donated bodies to Hospitals and medical and teaching institutions.

**Area of Jurisdiction:** The Act governs over whole of state of Maharashtra and it covers Vidharba, Hyderabad, Saurashtra areas of State of

Bombay which were previously under the effect of Madhya Pradesh, Hyderabad and Saurashtra related anatomy acts.

The Bombay Act allows the use of unclaimed bodies or the donated bodies for the purpose of

- i Anatomical examination (for medical education or research purposes)
- ii For therapeutic purposes

(Table 1) Most Anatomy Acts in India such as the Karnataka, Uttar Pradesh (UP), Tamilnadu etc., do not cover therapeutic use of donated body under its auspices (Bare Acts Live, 2018; Laws of India, 2018a, 2018c). The body obtained under these Anatomy Acts only allows use of the body for anatomical examination either for medical education or for research purposes. With the enactment of Transplant of Human organs and Tissues (THO) Act, which provides for removal, storage and transplantation of human organs and tissues or both for therapeutic purposes, the Anatomy Act need not cover the therapeutic use of dead bodies as such a use is covered by the THO Act (Archive.India.Gov.In, 2018). Thus the therapeutic use of the body of the deceased has been omitted from the amended Odisha Anatomy act 2012 (Govtpress.Odisha.Gov.In, 2018).

The Maharashtra Act allows two sources of human bodies.

Unclaimed bodies

Donated bodies.

(Table 1) A few other Anatomy Acts such as the Karnataka and Kerala Anatomy Acts in India cover voluntary body donation (Laws of India.org, 2018c, 2018d). Thus most other Anatomy Acts in India rely on unclaimed bodies as sources for bodies for dissection and study of anatomy. In states where

**Table 1.** Depicts the comparison of some of the important clauses of different Anatomy Acts within India

Clause under consideration	Names of Anatomy Acts of different States of India									
	Maharashtra Anatomy Act <sup>[30]</sup>	Karnataka Anatomy Act <sup>[17]</sup>	Himachal Pradesh Anatomy Act <sup>[1]</sup>	Kerala Anatomy Act <sup>[18]</sup>	Haryana Anatomy Act <sup>[16]</sup>	Goa, Daman and Diu Anatomy Act <sup>[8]</sup>	Tamil Nadu Anatomy Act <sup>[15]</sup>	UP Anatomy Act <sup>[2]</sup>	Orissa Anatomy Act <sup>[9]</sup>	Delhi Anatomy Act <sup>[6]</sup>
<b>1 Year of Enactment</b>	1949	1957	1966	1957	1974	1976	1951	1956	1975	1953
<b>2 Purpose of obtaining the dead bodies</b>										
Anatomical examination/ Research	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Therapeutic use	Yes	No	Yes	No	Yes	Yes	No	No	No	No
<b>3 Source of body</b>										
Unclaimed body	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Donated body	Yes	Yes	No	Yes	No	No	No	Yes	Yes	No

the Anatomy act does not cover voluntary body donation, a person wishing to donate his/ her body for dissection purposes needs to fill the body donation form of an Institute (Authorized Medical College), file an affidavit regarding his/her wish to be an organ donor, get a "Legal heir certificate" and a "no objection certificate" from the near relatives and apply with all these documents to the Director of the Institute where they wish to donate their body. Thus in those states where body donation is not part of the Anatomy Act of that State, the process of voluntary body donation is very challenging (Delhi Anatomy Act, 2018; Laws of India.org, 2018a, 2018b). Bolt et al state that in Netherlands too, a person wanting to carry out voluntary body donation must contact one of the Medical Colleges on their own, give personal approval in the form of signed contract between the anatomical Institute

and the potential donor with the indirect result that only very well motivated persons complete the procedure (Bolt et al., 2010).

As a result, the Odisha Anatomy Act was amended in 2012, and has now inserted "donated bodies" in its long title, so as to allow for voluntary body donation under this Act (Govtpress.Odisha.Gov.In, 2018). Following enactment of this aspect of the Act, voluntary body donors, will not have to go through the trouble of filing affidavits. This also came as a boon to medical colleges which will now get more bodies for medical education and in better condition. The UP Anatomy rules (1959) also allow for voluntary body donation which was not initially a part of the UP Anatomy Act (Bare Acts Live.com, 2018).

A petition was filed in court by a brother in Delhi, claiming non-fulfillment of his deceased sister's

**Table 2.** Depicts the comparison of some of the other important clauses of different Anatomy Acts within India

Clause under consideration	Names of Anatomy Acts of different States of India									
	Maha-rashtra Anatomy Act [30]	Karna-taka Anatomy Act [17]	Hima-chal Pradesh Anatomy Act [1]	Kerala Anatomy Act [18]	Haryana Anatomy Act [16]	Goa, Daman and Diu Anatomy Act [8]	Tamil Nadu Anatomy Act [15]	UP Anatomy Act [2]	Orissa Anatomy Act [9]	Delhi Anatomy Act [6]
<b>1 Definition of Near Relative</b>										
Lineal consanguinity	3°	3°	3°	3°	3°	3°	3°	6°	3°	3°
Collateral consanguinity	6°	6°	6°	6°	6°	6°	6°	12°	6°	6°
By Marriage	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d) Any Other	-	-	-	-	-	-	-	As preceptor/disciple	-	-
<b>2 Persons who can claim the deceased person's body</b>	Near relatives	Near relatives	Near relatives	Near relatives or religious or public organization belonging to the faith of the deceased	Near relatives	Near relatives	Near relatives	Near relatives	Near relatives	Near relatives and friends
<b>3 The age of the "near relative" who can give or withdraw consent for whole body donation or claim the unclaimed body.</b>										
Not specified by any of the Anatomy Acts										
<b>4 Time period within which an unclaimed body may be claimed</b>	Within 48 hours	Within 48 hours	With least practicable delay	-	-	-	-	Within 48 hours/ With least practicable delay	Within 48 hours/ With least practicable delay	Within 48 hours/ With least practicable delay
<b>5 Penalty if body disposed outside the purview of the Act</b>	Rs 500	Rs 500	Rs 200	Rs 500	Rs 200	Rs 500	Rs 500	Rs 500	Rs 500	Rs 500

wishes, who had expressed a wish to be a body donor. However, as the Delhi Police did not issue a “non-objection certificate” which would ensure that the body was not required for any medico legal purposes, the body donation could not be carried out. It was stated that Delhi Anatomy Act be revised to allow for whole body donation (Jain, 2018).

The Maharashtra Act defines the following terms:

**Approved Institution:** A Hospital, Medical/ Teaching institution approved by the state government for application of this Act (The Maharashtra Anatomy Act, 1949). The Act needs to redefine the word teaching institute, with respect to various practices such as allopathic, ayurvedic, homeopathic, unani, and other colleges such as Dental, Physiotherapy, Nursing, etc.

**Authorized Officer:** A person who is appointed by the state government and empowered with rights to carry out various provisions of this act (The Maharashtra Anatomy Act, 1949). The Act however does not specify details regarding the qualifications, designation and Department of this authorized Officer (Yadav, 2007).

**Near relative:** Wife, husband, brother, sister, son, daughter, parent or any other related to the deceased by lineal or collateral consanguinity within three degrees in lineal relationship and six degrees in collateral relationship, or by marriage either with the deceased or with any other relative specifically mentioned in this clause (The Maharashtra Anatomy Act, 1949).

(Table 2) In the UP Anatomy Act (1956), the near relative has been described as an individual related to the deceased, by lineal consanguinity within six degrees or by collateral consanguinity within twelve degrees. It also includes a person who is related to the deceased as preceptor or disciple within three degrees (Bare Acts Live.com, 2018).

**Lineal consanguinity** is the relationship among persons who are blood relatives where one person is a direct descendant or ascendant of the other (US Legal I, 2018b). For example, a lineal consanguinity exists among a mother, her daughter and granddaughter.

**Collateral consanguinity** is the relationship between persons who have a common ancestor but do not ascend or descend from one another (US Legal I, 2018a). For example, the relationship between cousins who have the same grandparent, or the relationship shared between uncle and nephew.

All Anatomy acts in India do not specify the age of the “near relative” who can give or withdraw consent for whole body donation or claim the unclaimed body. (Table 2) Is it to be assumed that the near relative concerned here is an adult?

### **Aspects in the Act related to Unclaimed body**

A body of the deceased person who has no near

relatives, or whose body has not been claimed by any of his near relatives in a given time period is defined as an unclaimed body. This time period along with method of preservation of the body in the time period, has however not been uniformly specified in all the Acts that were compared. (Table 2) The Delhi Anatomy Rules 1954, state that the authorized officer in charge of the police station of that jurisdiction or the village head, shall arrange for preservation of the body and specifies a time period of 48 hours after which the said “body” shall come under purview of the Anatomy Act. The rules also specify the method of preservation and storage of the body (Delhi Anatomy Act, 2018).

While the unclaimed body can only be claimed by his/her near relatives as per the Maharashtra Anatomy Act, it can also be claimed by friends as per the Delhi Act and by religious or public organization belonging to the faith of the deceased as per the Kerala Anatomy Act (Delhi Anatomy Act, 2018; Laws of India.org, 22018d; The Maharashtra Anatomy Act, 1949).

However the authors would like to suggest that in either case, the authenticity of the claimant needs to be established by legally competent authority.

Some clauses pertaining to the unclaimed body are as follows: (The Maharashtra Anatomy Act, 1949)

If a person dies in a government hospital and his body is unclaimed, then person in charge of such a Hospital should inform the authorized officer (as described earlier) at the Hospital, who in turn will hand over the body to the authorities in charge of the approved Institution/ Hospital for anatomical examination and dissection.

If a person dies in a Hospital which is not a Government facility or in a prison and his body is unclaimed, the authorities in charge shall inform the authorized officer who in turn shall hand over the body to the authorities in charge of the approved Institution/ Hospital for anatomical examination and dissection. All the above actions should be carried out with least practicable delay. However the time period included under “least practicable delay” has not been specified (Table 2).

If a person having no permanent place of residence dies in such an area in a public place and his/her body remains unclaimed, then the authorized officer shall take charge of the body and hand over the body to the authorities in charge of the approved Institution/ Hospital for anatomical examination and dissection.

If the authorized officer feels that there is doubt regarding the cause of death, he shall forward the unclaimed body to a police officer.

If the authorized officer doubts that the person claiming to be the near relative is truly so then the case may be referred to the Executive magistrate whose decision will then be final. The authors would like to suggest if a doubt is raised regarding

a friend (as per Delhi Anatomy Act) or a religious body (as per Kerala Anatomy Act) claiming the body, then too the case may be referred to the executive magistrate as stated above (Delhi Anatomy Act, 2018; Laws of India.org, 2018d).

Pending the decision, the authorized officer will preserve the body of the deceased person from decay. Here the Delhi Act specifies that the body be kept in cold storage mortuary till it is removed to the Anatomy Department where it will be washed and preserved by use of formalin or glycerine solution. Bodies not required immediately shall be kept in a tank containing preservative solution (Delhi Anatomy Act, 2018).

The authority for removal of a body lying in the Hospital etc., unclaimed, can be given by a person appointed to be in charge by the authorized officer.

Pampilly (2005) discussed the definition of an unclaimed body which has been variably described by the Anatomy Acts. The Karnataka act states that "an unclaimed body is the body of a person, who dies in a Hospital, prison or a 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 be prescribed". Pampilly went on to define an unidentified body as a dead body found in a public place where the identity of the person could not be established, except for the sex and approximate age. In such a case, in case there is doubt about the cause of death, the body will be forwarded to the police authorities. Otherwise it could be utilized for the purpose of anatomical examination and dissection. Pampilly states that it is better to utilize an unclaimed body from Hospital or prison for dissection purposes as the identity and cause of death are known. In case of the unclaimed bodies found in public places, cause of death is not known as concealed injuries are likely to be missed. In such a case it is not very difficult, to dispose of the body of a murdered person for anatomical dissection (Pampilly, 2005). The authors are of the opinion that such a body does not have a documented proof of status of the disease and thus can be an element of health hazard for all those personnel who are handling the body.

#### **Aspects in the Act related to voluntary body donation** (The Maharashtra Anatomy Act, 1949)

If the deceased person has during period of his illness or otherwise expressed the will (either in writing or orally in presence of two witnesses) that his body be given to authorities in charge of an approved institution for therapeutic or dissection purposes, the person lawfully in possession of the body may authorize removal of the body or any part from the body for use for the purposes specified, to such an institution. However if the person lawfully in possession of the body has reason to believe that the request had been withdrawn subsequently or if a near relative of the deceased ob-

jects to the donation of the body, the body donation may not be carried out. The Law however does not specify the time period in which such an objection may be raised (Table 2).

As there is no window period given for annulling the act of body donation, one may encounter a perilous situation where the donated body may be claimed back by the relatives at a later date. Authors are of the opinion that once the act of body donation has been done, it cannot be annulled and the body cannot be claimed back and such an amendment may be made in the act. In case such an annulling of body donation is entertained, it may need to series of changes in documentation at every level in the concerned offices. The authors feel that the act of body donation is purely voluntary.

The Law does not make any provision for a situation where in the deceased may have expressed the wish for body donation in writing or orally to a friend, but has no near relative at his/her side as the time of demise. The Law also makes no provisions regarding the rights of a live-in partner of the deceased objecting or allowing for body donation.

The removal of the body for purpose of anatomical dissection and research under the Maharashtra Anatomy act is legal and sufficient to warrant for removal of body or any part of the body for the purposes of this act.

The body of the deceased cannot be removed for purposes concerned with this Act, until 48 hours from the person's demise or 24 hours notice to the Executive Magistrate regarding the intended removal. In either of above situations, the body should be accompanied by a certificate of death issued by registered medical practitioner who is not concerned with dealing with the body for purposes of this Act.

If the person lawfully in possession of the body believes that there is need for inquest/ post-mortem examination of such a body, further removal of the body for purposes specified under this Act, shall be only with the consent of the authority empowered to do inquest/ order a postmortem examination. A person entrusted with the body only for its cremation cannot give authority for removal of the body/ any of its parts.

The Act states that the person receiving the donated body under this act should demand and receive a death certificate along with the body. The authors suggest that it be also specified that the death certificate should be by a registered medical practitioner whose qualifications need to be specified in the Act without which the body should not be accepted.

The person receiving the donated body has to send within 24 hours to the Executive Magistrate or an Officer appointed by the state Government, a copy of the death certificate and a letter stating at what time, on which day and from whom, the body was received. He must also specify the date and

place of death, sex, name and surname, age, last place of abode, the stated cause of death in this letter. He must also note the same in a register which must be produced whenever asked.

There is a need today to confirm whether the above procedure is being followed by all the institutions that are sanctioned to receive donated bodies.

The body received under the anatomy act, should be placed in a coffin, a shell or any other thing for holding it. The party removing it should later also make provision for it to be decently cremated/ buried according to the religion of the deceased after its utilization for the purposes of the Act. Completion of this procedure should be informed to the Executive magistrate/officer appointed by the State government for this purposes, within six weeks from receiving the body.

Since the bodies received by Department of Anatomy take several months to years to be completely utilized they are finally incinerated. Hence the authors would like to suggest that there is a need to amend the act regarding the disposal of the remains. However the same should always be done as per the guidelines of the prevailing laws of disposal of biomedical wastes. The authors would also like to point out that informing the executive magistrate regarding utilization of the body as stated in the present Act, becomes challenging. This part of the Act needs to be addressed.

If a person disposes of, or abets the disposal of the dead body, except under this act, or obstructs the authority in charge of handling the body, from handing over/ taking possession of the dead body, he/ she can be fined up to rupees five hundred (The Maharashtra Anatomy Act, 1949). The amount given here is fixed at rupees two hundred in Himachal Pradesh and Haryana Anatomy Acts (Archive.India.Gov.In, 2018; Laws of India.org, 2018b). However the authors suggest that the fine for the above misdemeanor should be uniform all over the states of India (Table 2).

All Government officers and other employees, and all village officers and servants are bound to help the authorized officer to carry out of his duties under this act. No legal action can be taken against a person carrying out his duties in good faith under this act (The Maharashtra Anatomy Act, 1949).

The Government may make rules for this act by notifying them in the Official Gazette, specifying the period in which a relative may claim the body of the deceased. The Act further states that these Rules be placed before the State Legislature while in session and be made into the Act after suitable modifications (The Maharashtra Anatomy Act, 1949).

Such rules have been made by some states such as Orissa, Uttar Pradesh and Delhi (Bare Acts Live.com, 2018; Delhi Anatomy Act, 2018; Govtpress.Odisha.Gov.In, 2018). These deal with

issues such as time period within which an unclaimed body may be claimed, method of preservation of unclaimed bodies and person accountable for the same in the above given period etc. The UP Anatomy rules give a time period of 48 hours for claiming the "unclaimed dead body". The rules also require the authority in charge of the medical institutions which need dead bodies for dissection, to give a requisition for the same to the authorized officer by end of June every year (Bare Acts Live.org, 2018).

The Delhi Anatomy rules (1954) state that an unclaimed or donated body if not required by a teaching medical Institute, may be handed over to a social organization for cremation or burial according to the religious sensitivities (if known) of the person. However none of the anatomy acts address the issue of transfer of such bodies to other teaching Institutes and the legalities involved in such a transfer. Considering the grave need for cadavers for dissection being experienced by many teaching medical Institutions, such a situation needs to be clarified through making of necessary rules (Not enough cadavers at medical colleges, 2016).

The Maharashtra Act states that the Law cannot prohibit postmortem examination of anybody if advised by any Law applicable in the State at that time. All activities carried out under the purview of this Law will be considered as legal and lawful (The Maharashtra Anatomy Act, 1949). The Act provides protection from the provisions of section 297 of Indian Penal code which makes disturbance of a dead body, example trespassing at burial places or mishandling of dead body, a punishable offence (Indiakanon.org, 2018).

The earlier acts such as "The Saurashtra Anatomy Act, 1955", "The Madhya Pradesh Anatomy Act 1954" applicable in Vidharba region of the State of Bombay and "The Hyderabad Pathology and Anatomy Act" applicable to Hyderabad area of state of Bombay stand annulled with the commencement of the Maharashtra act (The Maharashtra Anatomy Act, 1949).

These are some of the issues along with possible suggestions that need discussion in the Maharashtra anatomy act and other anatomy acts of different states of India. In a similar study, Bin et al researched into the constitutional principles related to human body donation in Italy and found them to be fragmented and obsolete. They concluded that there was a need for a clearer and updated legislation (Bin et al., 2016).

In the present study too, the authors would like to suggest that there is a need for amendments in many of the State Anatomy Acts which date back to mid 19th century and it is suggested that a central anatomy act of India be formulated, which would take all above suggestions into consideration and which would be applicable uniformly in all states of India.

## CONCLUSION

On comparison of the Anatomy Acts, it was observed that while most Anatomy Acts allowed use of the cadaver for anatomical dissection and research, a few also covered therapeutic use of the cadavers. The authors suggested that since there is a separate Human Organs and Transplant Act in place in India, the Anatomy Acts need not now also cover the therapeutic use of the cadavers coming to Anatomy Department.

It was observed that many Anatomy Acts did not cover voluntary body donation which is a very important source of obtaining cadavers. The relevant Acts need to be amended to cover voluntary body donation.

All the Anatomy Acts were ambiguous about exact meaning of terms such as "Approved Institution" and "Authorized officer".

All Anatomy Acts defined unclaimed bodies, but failed to clearly specify the time period during which a near relative may come forward to claim the body. Also some Anatomy Acts (Delhi and Kerala) also gave friends and religious bodies the right to claim a body. The Anatomy Acts clearly defined the near relative but failed to define the parameters of the friend/ religious organization who may also claim the body. The authors felt that authenticity of any person having the right to claim the body must be lawfully established. Similarly all the Anatomy Acts allowed the near relative to give consent for body donation but do not specify the age of the near relative when he/she may give consent.

Most of the Anatomy Acts in place fail to address the issue of transfer of bodies which may not be needed by one Institute, to other teaching Institutes and the legalities involved in such a transfer. This is an important issue taking into consideration the grave shortage of cadavers for dissection.

All Anatomy Acts specified the necessity for the cadaver to be accompanied by a death certificate but the Acts did not specify the qualification of the medical practitioner issuing the death certificate.

The Anatomy Acts also have specifications for disposal of the bodies once utilized. However many directives within the Act seem difficult to implement in practicality. The Acts need to be reformulated to adjust to the need of the modern times.

The authors conclude that various aspects of Maharashtra anatomy act and other anatomy acts of different states of India need to be reanalyzed and suggest that a central anatomy act of India be formulated, which would take all above suggestions into consideration and which would be applicable uniformly in all states of India.

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