

KNOWLEDGE OF BODY DONATION IN BAMS CURRICULAM

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ABSTRACT

Human Anatomy is one of the elementary and imperative subjects studied by *Ayurveda* medical students at the starting of their medical calling and the study of anatomy is very difficult without the knowledge of cadaveric dissection. However, there is a global shortage of cadavers. The preferred and main source of cadavers is body donation. This study will give a brief history of body donation and need of body donation programme in the institution. The *Ayurveda* medical students must be made aware of Body donation. They must know about importance of Body donation in all points of view i.e., Ethical, Forensic, Embalming, Body selection as mentioned in *Samhitas*, organ transplantation, Socially and Psychologically etc. This study therefore planned, applied, and assessed the impact of body donation in all above point of views.

KEYWORDS: *Sharir, Rachana, shava, Ayurveda.***INTRODUCTION**

"*Ayurveda*" is an ancient system of healthcare that is native to India. At present, in India, there are more than 273 colleges that offer a graduate-level degree (Bachelor of Ayurvedic Medicine and Surgery—BAMS) in Ayurveda. Our ancient acharyas advocated for a complete structural scientific understanding of life. *Acharya Sushruta* is known as the "Father of Surgery" because the *Sushruta Samhita* contains descriptions of technique for studying anatomy, dissection on cadavers, *Dhamani*, *Sira*, *Marma* and so on. He has placed a greater emphasis on practical knowledge. *Sushruta Samhita* is the cornerstone of *Rachana Sharir* study.

Rachana Sharir is essential in *Ayurveda* for all health disciplines. It is a fundamental subject in health science. The *Ayurvedic* natural science is also backed by *Rachana Sharir*, without *Sharir Rachana* understanding the physician cannot become flawless in the profession. As a result, the expertise of *Rachana Sharir* was valued by the Ancient Acharyas such as *Sushruta*, *Charak*, and *Vagbhata*. The necessity for an Ayurvedic human anatomy manual is critical for Ayurvedic undergraduate students. For *Sharir* knowledge, one should be familiar with corpse dissection; for practical knowledge, body donation is required. In *Sushruta Samhita* described about need of body dissection.

To know the knowledge of organs (*Anatomy*) one should do practical work after purifying the dead body. Along

with practical, it is also necessary to know the theory. Both types of practice create knowledge.^[1]

Dissection continues to be used at the beginning of the medical curriculum to show students about human anatomy. Human cadaver dissection is a crucial aspect of anatomy learning, knowledge, and research. It's a centuries-old yet potent learning tool for medical students. To demonstrate respect for the deceased individual till the tip, the cadaveric dissection must be performed in a very polite manner. Being conscious of the moral and humanitarian values of cadaveric dissection may gain advantage students by widening their perspective on cadavers during the first stages of their education. Body donation is the act of giving one's body after death without any conditions for education and research in medicine. Voluntary body donation has become an important source of cadavers for anatomical study and education.

Now a days due to increasing numbers of medical institutions, there is also an increased demand of cadavers for anatomic dissection. The situation is equally affected in India, too. In a survey some of the medical colleges in Maharashtra (India), a gross insufficiency of cadavers was found in 90.90% of medical colleges.^[2] Most important reason for 'no body donation' in Indians is lack of awareness. Only 22 % of general population is aware that body can be donated.^[3]

History of Body Donation

In the Ancient Puranas, a compilation of Hindu holy literature, *Dadhichi*, after acquiring spiritual knowledge, led a pious life. When prayed for by Indra and other gods, *Dadhichi* readily sacrificed his life as well as the body, in order that the gods might win in their war against demons. This could be regarded as the world's first ever body donation. In ancient India, *Sushruta* dissected human body in about 500 BC.^[4] Andreas Vesalius (1514-1564) was the first medical student to dissect the cadaver and also continued with it even as a professor.^[5]

Cadaveric dissection continues to function a serious learning tool for medical undergraduates and it's sustained by the active voluntary body donation programme, which is that the main source of cadavers. As the number of Ayurveda colleges is increasing within the present scenario, most of the Ayurveda colleges experience difficulties in obtaining adequate number of cadavers. At present, unclaimed bodies are the most sources of cadavers that are coming from the authorised government institutions. The students should undergo such training from the start of their curriculum with the intention of sensitising them towards the handling of the cadavers and allowing them to know the importance of a body donor's contribution, thus creating a motivating impact on their attitude towards cadavers. It's crucial to form medical students awake to the moral considerations while handling cadavers for educational and research purposes. This might function an initial step towards showing respect and empathy to patients in their future careers. This study has been specially designed to increase awareness about Body Donation programme.

Anatomy Act

There is a rise in demand for cadavers for dissection as there are more medical institutions in the nation. In order to meet this need, different Indian states passed the Anatomy Act, which mandates that unclaimed remains be supplied to medical and educational institutions for anatomical inspection and dissection. The Anatomy Act, its legal procedure, norms, and restrictions are not widely known. Therefore, we must be aware of the Anatomy Act. The Anatomy Act, formerly known as the Bombay Act, was adopted in India in 1949.^[6] (Bombay Anatomy Act, 2018). The majority of other states thereafter adopted their own anatomies acts based on the Bombay Act. As a result, practically all of India's states have an anatomy act. Over time, many of these Acts have undergone modifications. Additionally, a lot of States (though not all) have anatomy rules in regard to these anatomy acts. The Anatomy Act was passed in India in 1948.

Why Body Donation programme is required in BAMS Curriculum?

- Anatomy as Pillar of All Subjects- Anatomy is the study of structure, framework, and the relationship of body parts. Various medical schools offer

anatomy, to familiarise students with the human body and how it works in practice. These anatomy classes teach students the following fundamental concepts: The human body's functions, The structure of body components, Different organs' locations, Cell and tissue distribution Knowledge of body systems such as the neurological system, respiratory system, digestive system, reproductive system, and so on. Understanding of various bones and joints, among other things.

- Forensic Point of View- It is use contribution of anatomy to get knowledge of forensic science. Without the knowledge of anatomy, one cannot understand the fact happening in the body at the moment of death and the changes occur after death. If they know normal structure of viscera's, skin body wall and other structure than they can easily differentiate about normal and abnormal death. They can see what the changes occur in body if death is abnormal like suicidal, drowning, hanging, poisoning, murder, accidental etc. They can know that weather there is either brain death or all efforts to resuscitate a person have failed. For the knowledge of forensic science in starting stage, one should know the complete anatomy and for this cadaveric dissection is best of all.
- Surgical Point of view - Anyone who is unfamiliar with Anatomy cannot accurately describe the various sections or components of the body, including the skin. As a result, anyone interested in learning about anatomy should prepare a dead body and carefully observe (by dissecting it) and inspect its various components. For a full understanding, compare the accounts offered in the Shastras (books on the subject) with direct personal observation. Improved methods of surgical education for students and working experts are essential with the introduction of innovative surgical and interventional radiological procedures. Simulating surgery on human cadavers is the technique now utilised for surgical training that is most similar to actual practise. During undergraduate and postgraduate medical training, it is still the most efficient way to teach anatomical knowledge. Even though a freshly frozen and thawed body might be the best at maintaining the structure and suppleness while simulating a real-life situation, this method is not widely used due to a lack of such bodies and proper storage facilities, its unsuitability for long-term use, and, most importantly, potential health safety risks.
- Knowledge about Organ Transplantation- The person's medical status at the time of death can influence what organs and tissues can and cannot be given. Organs must be removed as soon as the individual is confirmed brain dead. Without the required oxygen supply, the organs cease to operate properly. The estimated period between healing tissues/organs and transplanting them is: 4 to 6 hours for the lungs 4 hours, for the heart 24-hour, liver 24

hours, Pancreas 72 hours, Kidney 14 days, Cornea 5 years, Bones 5 years of skin 10 years of heart valves so, students can also get the knowledge about organ transplantation.^[7] Body donation knowledge is one such method.

Criteria For Body Selection- As mentioned in *Sushruta Samhita* the body selected for this purpose mustn't be wanting in any of its parts, shouldn't be an individual who had lived up to 100 years (i.e., too old age) or of 1 who died from any protracted disease or of poison. Therefore, the body should be left to decompose within the water of a solitary and still pool, and securely placed during a cage (so that it's going to not be eaten away by fish nor drift away), after having covered it entirely with the outer sheaths of *Munja*, grass, *Kusha* grass, hemp or with rope etc. After seven days the body would be thoroughly decomposed, when the observer should slowly scrape off the decomposed skin etc. with a whisk fabricated from grass-roots, hair, *Kusha* blade or with a strip of split bamboo and punctiliously observe together with his own eyes all the assorted different organs, external and internal, beginning with the skin as described before. The Self, the occult or invisible Lord of the body can't be detected except with the psychic eye or therewith of the mind. He, who has observed the inner mechanism of the figure and is well read within the works pertaining to these subjects and has thus all his doubts expelled from his mind is alone qualified within the science of *Ayurveda* and incorporates a rightful claim to practise the art of healing.^[8]

Society should play a serious role in motivating the people to donate their bodies for training of medical and other health care professionals. Main reasons for "No body donation" are lack of awareness, religious uncertainties, distrust of drugs and hostility of latest ideas. Within the present scenario, mass media can play a serious role in motivating the society. The influence of television, press and magazines, hoarding and posters, campaign about donation, information given by health professionals regarding body donation.

Body donation units should be established in all Ayurveda colleges and awareness programmes should be designed. That factors that can cause repulsion for body donation should be taken care. Awareness programmes should be started with the help of Politicians, religious persons, NGO and mass media. Donors should be assured that their bodies will be treated with dignity and respect.

CONCLUSION

Dissection of human cadavers is compulsory for *Ayurveda* Graduates. Dissection of cadavers is essential to the study of anatomy. However, there is a global shortage of cadavers. The preferred and main source of cadavers is body donation. So, one cadaver dissection can teach many doctors who can treat thousands of patients and can be a relief to their loved ones. So, the

decision of an individual to donate his/her body is gift for advancement of medical sciences. Government should encourage and educate the public to create awareness about organ and body donation. Organized efforts are needed to raise the awareness about body donation and change the mindset of the society towards body donation. 'Body donation programme' should be designed.

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