

## Posthumous body donation: Observation from the desk of an anatomist of Eastern India

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### Abstract:

**Background:** Posthumous body donation is the donation of a whole body after death for research and education. It is the major source of cadavers, indispensable for the study of anatomy.

**Objective(s):** To Study the age, gender and religion wise distribution and trend of cadaver donation in a tertiary care hospital of Eastern India.

**Materials & Methods:** The cross sectional study was performed with census population in Nil Ratan Sircar Medical College & Hospital, Kolkata from 1<sup>st</sup> July, 2014 to 30<sup>th</sup> June 2017. Source of the data was hospital record. Unclaimed and autopsied cadavers were excluded from the study. Donations were not deemed suitable for bodies with HIV/AIDS, viral hepatitis, donated organs or skin diseases. Data compilation and analysis were done according to standard statistical techniques.

**Results:** A total of 214 donated bodies have been received by the Department of Anatomy, Nil Ratan Sircar Medical College & Hospital, Kolkata within the study period with a increasing trend of acquisition. Although majority of the donors were male but there is rise in the number of female donors over the last three years. Most of the donors were more than sixty years of age where as no donation was made below eighteen years of age. Participation was not only from Hinduism but also one from Jainism and two from Islam religion.

**Conclusion:** The present study intended to throw a light on the issue of posthumous body donation.

**Keywords:** cadaver, donation, anatomy.

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### I. Background

Posthumous body donation is the donation of a whole body after death for research and education. Donated bodies are mostly used for gross anatomy, surgical anatomy, and for furthering medical education to make advancements in science. Curriculum related to several arthroscopic, endoscopic as well as otolaryngoscopic manoeuvres demands practice of cadaveric dissection<sup>1</sup>. In 1948 the Anatomy Act was passed in all of India's states. This allows bodies to be donated by the donor and bodies to be claimed for medical and research use if there is no claim to one's body within a 48-hour time frame<sup>2</sup>. Issues related to social awareness, cultural attitudes and perceptions of death, religion, and body-mind relationship should be handled advertently to increase the number of body donation in India<sup>3</sup>. The present study aims at reporting the trend of posthumous body donation in a tertiary care hospital of Eastern India. The objectives include finding out the age, gender and religion wise distribution of cadaver donation.

### II. Materials & methods

The cross sectional study was performed with census population in Nil Ratan Sircar Medical College & Hospital, Kolkata over a period of three years from 1<sup>st</sup> July, 2014 to 30<sup>th</sup> June 2017. Source of the data was hospital record. Unclaimed and autopsied cadavers were excluded from the study. Donations were not deemed suitable were bodies with HIV/AIDS, viral hepatitis, donated organs or skin diseases. Data compilation and analysis were done according to standard statistical methods.

### III. Results

A total of 214 donated bodies have been received by the Department of Anatomy, Nil Ratan Sircar Medical College & Hospital, Kolkata within the study period.

Chart-1: Distribution of total number of received donated cadavers in the Department of Anatomy, Nil Ratan Sircar Medical College & Hospital, Kolkata, clearly shows the increasing trend of acquisition.

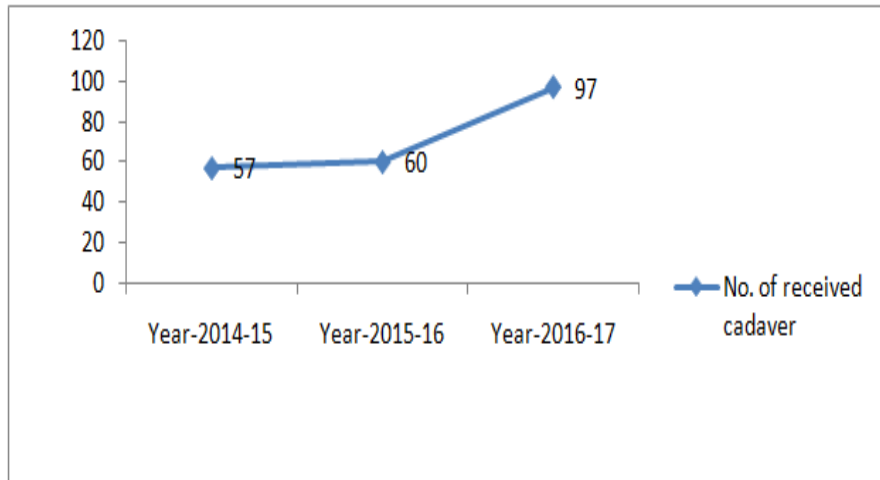


Chart-2: Sex wise distribution of donated cadavers within the study period indicates the males were significantly ( $p < 0.005$ ) outnumbered the females.

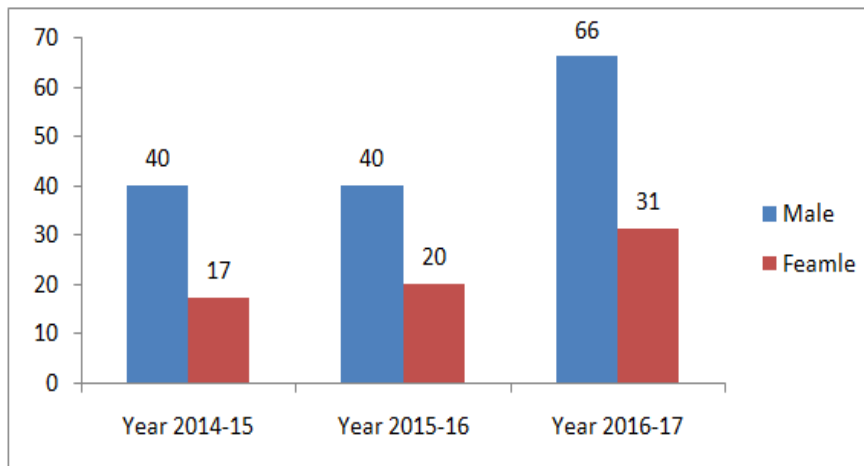
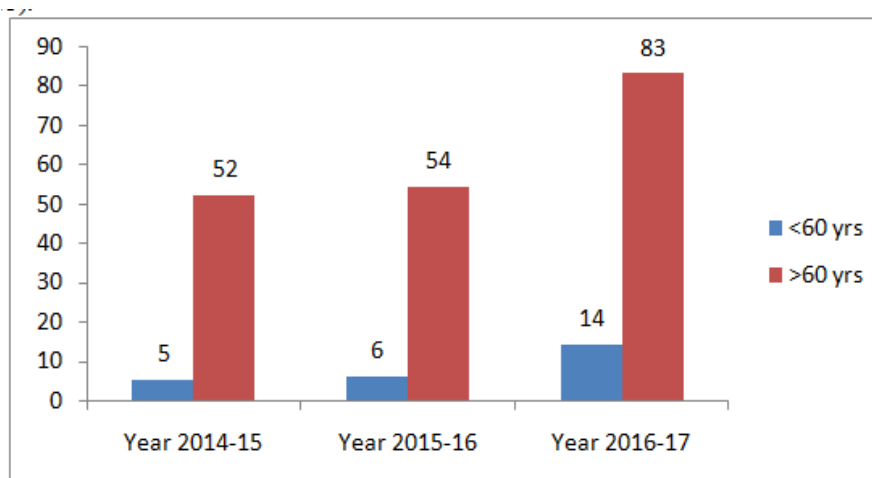


Chart-3: Age wise distribution of bodies donated within the study period shows majority were above 60 years of age ( $p < 0.005$ ).



Amongst the donated cadavers, one was from Jainism and two were from Islam religion; rests were from Hinduism.

#### **IV. Discussion**

A total of 214 donated bodies have been received by the Department of Anatomy, Nil Ratan Sircar Medical College & Hospital, Kolkata within the study period with a increasing trend of acquisition though Only 22 % of general population in India is aware that body can be donated (Rokade et al).<sup>4</sup> Although majority of the donors were male but there is rise in the number of female donors over the last three years. Most of the donors were more than sixty years of age where as no donation was made below eighteen years of age. This finding contradicts that of Alashek W et al.; they claimed that urge of body donation decreases with age<sup>5</sup>. Participation was not only from Hinduism but also one from Jainism and two from Islam religion<sup>6</sup>.

#### **V. Conclusion**

Cadaveric dissection is indispensable for the study of anatomy. A mannequin can't provide the fullest idea especially in relation to physiological and pathological alterations. However scarcity of cadavers is felt not only in India but also all over the world. Moreover, Organ and cadaver trafficking is a serious problem now a day. Posthumous body donation is the major and preferred source of cadavers worldwide. Although department of health and family welfare of government of West Bengal and few non government organisations are working sincerely, there is paucity of scientific publication regarding this issue. Anyway, the present study intended to throw a light on the issue and indicates the increasing trend of body donation though miles to go and mass awareness and counselling are the need of the hour.

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