



National Board of Examination - Journal of Medical Sciences

Volume 1, Issue 4, Pages 219–223, April 2023

DOI 10.61770/NBEJMS.2023.v01.i04.005

## POINT OF VIEW

### Is there a need for a Uniform Cadaveric Oath for Medical Graduates?

Kaushik Bhattacharya<sup>1,\*</sup> and Neela Bhattacharya<sup>2</sup>

<sup>1</sup>Consultant Surgeon, Department of Surgery, Shristi Cosmetic and General Surgery Clinic, Siliguri, 734001, West Bengal, India

<sup>2</sup>Consultant Plastic and Reconstructive Surgeon, Department of Plastic Surgery, Anandaloke Multispeciality Hospital, Siliguri, Pin 734001, West Bengal, India

Accepted: 12-March-2023 / Published Online: 01-April-2023

#### Abstract:

Cadavers have been used for dissection to learn the basics of anatomy since the 3<sup>rd</sup> century BC. Even today freshly admitted medical students are first taken to the Anatomy dissection hall to learn from cadavers and get an understanding of the enormity of the profession they chose. Most institutes have teachers explaining to the freshers what their reaction should be on seeing a cadaver and how it is to be treated. Some institutes make students take a cadaveric Oath. Today, the cadaver is not just an anatomy learning tool, but has far more uses in surgical basic and advanced training and enhancing our knowledge of medicine. And cadaver transplantation is a common practice now. With many places finding it difficult to access cadavers now, due to human rights issues, it is very important for the medical community to not only adopt but showcase to the world that they respect and acknowledge the role of a cadaver in both diagnostic and therapeutic modality. And frame a strong, uniform Cadaveric Oath to be taken by all medical students to emphasize that.

**Keywords:** Cadaver, Cadaveric Oath, Organ Transplantation, Surgery Trainees, Anatomy

\*Corresponding author: Kaushik Bhattacharya  
Email: kbhattacharya10@yahoo.com

## Introduction

A Cadaveric Oath is a pledge that a medical student takes before touching the cadaver in the anatomy dissection hall that emphasizes on proper handling of the cadaver without any insult or disrespect to the body while paying tribute to the soul. This also instils the idea of empathy and sacrifice in the young medical entrants. Since there is no uniformity or protocol followed in this oath, it is now felt necessary to make this cadaveric oath uniform. In view of the role of cadavers in surgical training and teaching, a proposal to revise the Cadaveric oath is being suggested.

## Cadaveric Oath

Unlike the Hippocratic Oath, there is no uniformity in Cadaveric Oath, and neither is there any compulsion in the medical college on an oath-taking ceremony before touching a cadaver. However, the usual Oath is...

*“I do solemnly pledge that-*

- I will always treat you with respect and dignity of the highest order, as you are my first Anatomy teacher*
- I will always respect your privacy and confidentiality*
- I will use this knowledge for the service of the society*
- In all my deeds from now onwards, I will do justice to your great sacrifice*
- My heart fills with gratitude, as I realize your kind & courageous act of donating your body for the purpose of our learning*
- I will be grateful to you and your family for this act of ‘Living After Death’*

## Why the Cadaveric Oath is useful?

Dissections of humans started as far back as the 3<sup>rd</sup> century BC, when Herophilus of Chalcedon and Erasistratus of Chios

performed the first cadaveric dissection to understand the whole body from the viewpoint of anatomy and physiology. Then why did this oath come into play now? The essence of the Cadaveric oath is to make the fresh medical students get ‘acclimatized ‘ to the environment of a human dissection hall and understand as well as uphold the dignity of the body, prevent any emotional or violent reaction at the scene of touching a cadaver, develop and inculcate interest in surgery and other surgical disciplines for the future, understand the sacrifice of the dead man or his family who donated the body for anatomy dissection in a medical college knowing fully well that the body will undergo dissection at various places for learning purposes. Finally, every student should understand that in the age of digital learning with 3-D computer-aided simulation images, cadaver dissection remains the best mode of learning human anatomy by understanding the three-dimensional relationship of different anatomical structures and appreciating anatomical variations [1]. A survey conducted on Venezuelan surgeons concluded that 88% of surgeons felt that cadaveric dissection was the most effective way to teach anatomy [2].

## Is there a need for a Cadaveric Oath for surgeons?

Given the development of a cadaver laboratory that uses frozen cadavers for hands-on training, education, and development of new surgical techniques, the oath needs to percolate from the four walls of the anatomy dissection hall to the cadaveric operation theatre. Cadaveric dissection improves the learning curve of fresh surgical graduates. Cadavers are also used in research when designing and developing medical devices. The cadaveric oath needs to also highlight the importance of cadaveric organ donation in brain-dead individuals inspite of the various legal, cultural, and religious sanctions in various countries [3]. Cadaveric implants like fat grafts, bone implants, or dental implants are used regularly in medical science.

### **Role of Cadavers in Minimally invasive surgery learning**

With laparoscopy and robotic surgery becoming more popular worldwide, learning anatomy is also becoming virtual without any feel of the tactile sensation of the organ. Cadaveric courses and workshops are devised for the surgeons to improve and familiarize themselves with the surgical outcomes by identifying the proper anatomical landmarks, practicing new surgical skills more comfortably on cadavers without any stress of the operation room, and learning, redefining or devising a new modification of a minimally invasive surgical technique on cadavers with confidence.

### **Role of Cadavers in Plastic Surgery**

Plastic surgeons extensively use cadaver dissections to practise various well-established and newer flap procedures. They have also developed a cadaveric model for a new and innovative methodology of implanting very small electrodes more efficiently within a nerve by dissecting fascicles and assessing their action. They have advocated that the microsurgery technique could be practiced on cadaver models to establish protocols before beginning with a first patient [4]. It was seen that cadaveric-based studies and simulation in the curriculum during postgraduation increased a resident's operative skills and the teachers observed an increase in knowledge of anatomy and confidence in technique among all resident trainees. Another benefit of surgical simulation on cadavers was that teachers can identify and individually supervise struggling residents for skill enhancement [5]. A proposal to establish high-fidelity cadaveric simulation through the development of a perfused cadaveric model whereby simulation is further able to approach life-like surgery and teach one of the more technically demanding skills of plastic surgery- 'microsurgery' was also reported [6]. Cadaver skin grafting to tide over major burn victims is not just a learning exercise but an

instance in that cadavers are used for treatment!

### **Role of Cadavers in Cardiothoracic Surgery**

Simulation through cadavers has a vital role to play in Cardiothoracic resident training [7]. It was concluded that the repetition of procedures allows the young cardiac surgery trainee to acquire dexterity. A partnership between the University of Rochester and LSI SOLUTIONS® created an interactive translational research model utilizing cadaveric simulation that has been successfully applied to accelerate bringing minimally invasive cardiac surgical techniques and innovative devices to patients [8].

### **Role of Cadavers in other surgical specialties**

The role of cadaver hands-on dissections for training novice surgeons for basic and advanced oculoplastic surgeries has been reported where surgical efficiency was improved and lethal complications prevented with improvement in their augmented operative autonomy, confidence level, and surgical skills [9]. The role of a cadaver for neurosurgeons in skull-based surgery learning and endoscopic neurosurgery training is also well established [10]. Cadaver studies played a central role in the discovery and definition of the Anterolateral ligament of the Knee, its anatomical features, biomechanical role, and reconstruction techniques. Thus, a cadaver is a powerful tool to develop, experiment with and test new devices which could be useful in clinical and surgical practice [11].

### **A new and revised Cadaveric Oath:**

3D simulations, 3D printing, and working with silicone models have not been able to replace the importance or usefulness of a cadaver in basic medical and advanced surgical training. Many countries are also finding it difficult to provide cadaver training due to the non-availability of cadavers or human rights issues that develop with unclaimed bodies. In this scenario, it is of

paramount importance that we cherish the learning that a cadaver can offer trainees and popularise a strong Oath to be taken by all medical graduates so that it is not felt that cadavers are being misused or even abused disrespectfully. We need to frame an oath that incorporates these sentences too:

**1. *I acknowledge that you are essential for advancing medical knowledge.***

**2. *I will remain thankful for all your organs that have made people live.***

**3. *I realise that is a huge privilege bestowed upon me for being able to learn from you and will always remain grateful for that.***

**4. *I vow to treat the cadaver with the utmost dignity and respect and will always maintain a professional demeanour during dissection. I will refrain from any disrespectful behaviour, such as making inappropriate comments or taking photographs or videos for non-educational purposes.***

**5. *I will always remember the generous donation made by the individual whose body I am dissecting, and I will honour their memory by learning as much as I can from this invaluable opportunity. I pledge to use this knowledge to benefit the patients under***

## References

1. Ghazanfar H, Rashid S, Hussain A, Ghazanfar M, Ghazanfar A, Javaid A. Cadaveric Dissection a Thing of the Past? The Insight of Consultants, Fellows, and Residents. *Cureus*. 2018 Apr 3;10(4):e2418. doi: 10.7759/cureus.2418.
2. Romero-Reverón R. Venezuelan surgeons view concerning teaching human anatomical dissection. *Anat Cell Biol*. 2017 Mar;50(1):12-16. doi: 10.5115/acb.2017.50.1.12.
3. Vuković M, Moljević N, Katanić N, Krivokuća D, Vuković V, Milosević Z. Cadaveric organ transplantation and

***my care and to always strive to provide the highest quality of medical care.***

## Conclusion:

Even in these times of 3D simulations, cadaver dissections are an essential tool not only for fresh medical students to learn anatomy, but for all surgical trainees throughout their careers to hone and advance surgical skills. Cadavers find increasing use in organ donation too. It is vital that just like the Hippocratic oath which is compulsorily taken by medical graduates to heal the living, a cadaveric oath too should be mandated to respect the dead.

## Author Contribution

1. Conception or design of the work... Kaushik, Neela
2. Data collection...Kaushik Neela
3. Data analysis and interpretation.... Neela
4. Drafting the article...Kaushik Neela
5. Critical revision of the article... Neela
6. Final approval of the version to be published... Neela Kaushik

## Conflicts of interest

The authors declares that they do not have conflict of interest.

- religion. *Med Pregl*. 2010 Jul-Aug;63(7-8):575-8.
4. Krähenbühl SM, Čvančara P, Stieglitz T, Bonvin R et al. Return of the cadaver: Key role of anatomic dissection for plastic surgery resident training. *Medicine* 96(29): e7528, July 2017. | DOI: 10.1097/MD.0000000000007528
5. Attaluri P, Wirth P, Gander B, Siebert J, Upton J. Importance of Cadaveric Dissections and Surgical Simulation in Plastic Surgery Residency. *Plast Reconstr Surg Glob Open*. 2022 Oct 17;10(10):e4596. doi: 10.1097/GOX.0000000000004596.

6. Carey JN, Rommer E, Sheckter C, Minneti M, Talving P, Wong AK, Garner W, Urata MM. Simulation of plastic surgery and microvascular procedures using perfused fresh human cadavers. *J Plast Reconstr Aesthet Surg.* 2014 Feb;67(2):e42-8. doi: 10.1016/j.bjps.2013.09.026.
7. Robinson DA, Piekut DT, Hasman L, Knight PA. Cadaveric Simulation Training in Cardiothoracic Surgery: A Systematic Review. *Anat Sci Educ.* 2020 May;13(3):413-425. doi: 10.1002/ase.1908.
8. Robinson DA, Evans JH, Martellaro AJ, Johnson CA Jr, Sauer JS, Knight PA. Interactive translational research model and cadaveric simulation: where minimally invasive cardiac surgery and industry meet. *Ann Transl Med.* 2018 Aug;6(15):314. doi: 10.21037/atm.2018.07.14.
9. Singh M, Sharma M, Nair AG, Mehta A, Kaur M, Gupta R, Gupta T, Sahni D. Cadaver dissection for oculoplastic procedures: A beginner's guide. *Indian J Ophthalmol.* 2022 Sep;70(9):3239–3244. doi: 10.4103/ijo.IJO\_3037\_21.
10. Suri A, Roy TS, Lalwani S, Deo RC, Tripathi M, Dhingra R, Bhardwaj DN, Sharma BS. Practical guidelines for setting up neurosurgery skills training cadaver laboratory in India. *Neurol India* 2014;62:249-56
11. Dal Fabbro G, Agostinone P, Lucidi GA, Pizza N, Maitan N, Grassi A, Zaffagnini S. The Cadaveric Studies and the Definition of the Antero-Lateral Ligament of the Knee: From the Anatomical Features to the Patient-Specific Reconstruction Surgical Techniques. *Int J Environ Res Public Health.* 2021 Dec 6;18(23):12852. doi: 10.3390/ijerph182312852.