

# IMPACT OF DISSECTION; UNDER AND POST GRADUATE STUDY IN MEDICAL COLLEGES

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**ABSTRACT... Background:** Teaching of anatomy is based on cadaver dissection. Islamic values regarding permission of dead body use for learning purpose and recent introduction of Problem based learning has led to false belief that dissection is of no more help in understanding Anatomy. **Objective:** To access the views of post and under graduate students whether dissection sessions done at undergraduate level have helped them in better understanding anatomy. **Methods:** Questionnaires were distributed among 60 postgraduate medical students and 60 undergraduate students. The questionnaire comprised questions relating to experience of dissection for postgraduate students who have done dissection during their undergraduate classes. **Results:** There was a statistically significant % of students who found dissection beneficial for post graduation. **Conclusion:** Dissection should be a part of study in medical schools.

## INTRODUCTION

Dissection has been a part of medical education in all parts of the world. Most of the people recognize dissection as the most universal and universally recognizable step in becoming a doctor<sup>1</sup>. All the medical schools have their own dissection rooms in the department of anatomy. The dissection halls are a source of curiosity for student on first day of their education in medical schools<sup>2</sup>. Dissection has become a question mark for its continuance because of so many reasons. There was no problem with this idea, till the modern medicine has been introduced to the Muslim communities. Dissection of the dead bodies for learning and teaching human anatomy at first, and subsequently, the other uses of human dead body on research, education and treatment, emerged new queries about the permissibility of using and dissecting the human dead body for such purposes<sup>3</sup>. In Pakistan adaptation of problem based learning has raised the suspicion that dissection is no more of help in studying medicine. In some medical schools dissection has been purposely abandoned and students are asked to use models and specimen instead of dissection<sup>4</sup>. Studies done in undergraduate students have shown that Anatomy can be learned in a better way if students do dissection

regularly but no study has been done on post graduate students to see if dissection done at undergraduate level is beneficial for post graduation also. Keeping this in view a study was conducted to see role of dissection in studying medicine. A questionnaire was circulated among students who have done their post graduation i.e. M. Phil and FCPS in anatomy and surgery. The student completed their post graduation during 1999-2009.

## Objective

To understand role of dissection at undergraduate and postgraduate level by calculating percentages of students who found dissection helpful at under and post graduate level.

## MATERIALS AND METHODS

Questionnaire was prepared and distributed among students who have completed their post graduation

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during 1999-2009. The study was conducted over a period of one year i.e. June 2008-June 2009. Data was analyzed using chi-square test.

## RESULTS

It was noticed that 80% of the post graduate students agreed that dissection was of help to them (Table I).

No. of Postgraduate students	Did dissection done in first/second year helped them in postgraduate studies		Models and specimen can be alternative to dissection	
	Yes	No	Yes	No
60	80%	20%	23%	77%

77% agreed that models and specimen cannot be an alternative to the dissection. However, 20% said that text books, models and specimens can be used as tool for teaching. 74% undergraduate students found dissection helpful in understanding anatomy (Table II).

No. of under graduate students	Did dissection done helps in understanding anatomical structures		Models and specimen can be alternative to dissection	
	Yes	No	Yes	No
60	74%	26%	20%	80%

20% thought that books and models can be a replacement for dissection.

## DISCUSSION

Results of present study show that dissection is essential for undergraduates. 80% of the post graduate students agreed that dissection was of help to them (Table I). Some of them said that they remember the course of vessels even now just by remembering their dissection. The easy availability of dissection videos and images through internet has led to decrease interest in dissection among students. In Islamic countries thinking that Islam does not

allow dead body to be used for dissection can be a factor. It is clear that in the cases of necessity for life-saving educations, researches or treatments, use of human dead body is allowed, encouraged and even recommended. In the cases of dissecting, it is preferred to use the dead bodies of non-Muslims<sup>5</sup>.

The introduction of a problem-based learning system (PBL) in Pakistan has led to a reduction in the number of lectures and limited the use of dissection in teaching anatomy. In the new curriculum, students learn the anatomy of different body systems using models and dissected specimen.

Results of present study show that 74% undergraduate students found dissection helpful in understanding anatomy (Table II). In past studies it was emphasized that dissection is an important tool for learning Anatomy. The importance of dissection for undergraduates has been emphasized by many authors. They have shown that dissection is a major tool for enhancing their memory of body parts and their relationship with other organs<sup>6</sup>.

The effect of the availability of step-by-step dissection videos on student practical examination scores is also discussed by some authors and they showed that video resource availability did not enhance student performance in anatomy and radiology. It has to be stressed, learning anatomy is most efficient and retention is highest when learning is combined with the experience of dissection<sup>7</sup>.

Anatomy is taught with textbooks, plastic models, and multimedia illustrations, but human cadavers are the primary tool for human anatomy education. Tissue dissection would augment students' understanding of anatomy<sup>8</sup>.

Since during dissection a student traces the course of vessel, dissects the relations and a whole picture is painted in his mind. A model is like the picture in a book. It was strongly suggested that dissection should be done in under graduate years. Students agreed that dissection deepened their understanding of anatomical structures,

provided them with a three-dimensional perspective of structures and helped them recall what they learnt<sup>9</sup>. It becomes clear that dissection done at undergraduate level is of help not only at that level but in future it helps them to understand Anatomy at postgraduate level.

### CONCLUSIONS

Dissection done at undergraduate level aids in postgraduate studies. Regular dissection sessions aid in understanding Anatomy at undergraduate level.

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### REFERENCES

1. Parker LM. **What's wrong with the dead body? Use of the human cadaver in medical education.** Med J Aust 2002; 176(2):74-6.
2. Winkelmann A, Cudner FH. **Cadavers as teachers: the dissecting room experience in Thailand.** BMJ 2004; 329: 18-25.
3. Atighetchi D. **Islamic Bioethics: Problems and Perspectives.** New York: Springer; 2007.
4. Samy A, Norm E. **Do we need dissection in an integrated problem-based learning medical course?** Perceptions of first- and second-year students Surgical and radiologic anatomy: 29; 2:173-80.
5. Sachedina A. **Islamic Biomedical Ethics.** New York: Oxford University Press; 2009.
6. Mclachian J, Bradley P, Searle J, Bligh J. **Teaching anatomy without cadavers.** Med Edu 2004; 38:418-24.
7. Granger NA, Calleson D. **The impact of alternating dissection on student performance in a medical anatomy course: Are dissection videos an effective substitute for actual dissection.** Clin Anat 2006 Jun 22.
8. Nnodim JO, Ohanaka EC, Osuji CU. **A follow-up comparative study of two modes of learning human anatomy: by dissection and from prosections.** Clin Anat 1996; 9:258-62.
9. Johnson JH. **Importance of dissection in learning anatomy: personal dissection versus peer teaching.** Clin Anat 2002; 15:38-44.

