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IS DISSECTION BETTER THAN PROSECTION FOR LEARNING ANATOMY?

Anatomy

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ABSTRACT

Paucity of cadaver and increasing intellect of students has demanded innovations in teaching and learning Process in medical Education. Though Anatomy is supposed to be I Year Subject in the curriculum of MBBS but student is expected to retain maximum of it throughout his life. The best method to grasp Anatomy is by seeing structures. This can be done by dissecting the cadaver by students themselves or they can learn the same by already dissected Body parts viz Prosected Body parts. So it was thought pertinent to conduct one such study to know which one is the better learning method. This was done by analyzing the performance in Practical.

KEYWORDS

Undergraduate education, Dissection, Prosection, Anatomy

INTRODUCTION:

Human Anatomy is very volatile subject especially for students of I MBBS. Learning through Dissection of cadaver has been age old method to make the learning more effective. Generations of doctors have been initiated into the medical profession by cutting into their first cadavers.[1] The number of medical students is increasing day by day but Paucity of cadaver in medical Schools has become a large problem for dissection class throughout the Globe. Considering this alternatives to Dissection are always thought off. Museum and synthetic body parts are now a days of choice in learning Human Anatomy [2]. Previously dissected cadavers are demonstrated in front of students in place of dissection. There are many advantages and disadvantages of using this method of learning Anatomy. Many students could not feel the experience of incision, separation of superficial and deep fascia along with the loose areolar tissue or they are deprived of seeing the appearance cutaneous nerves or couldnot guess the seriousness required for finding delicate structures like nerves and vessels.[3]
So it was thought pertinent to conduct a study where effectiveness of traditional concept of Dissection as learning Anatomy can be compared with newer concept of Prosection.

AIMS AND OBJECTIVE:

The aim of the study is to compare the two methods of learning Anatomy by analyzing the score obtained by students.

METHOD:

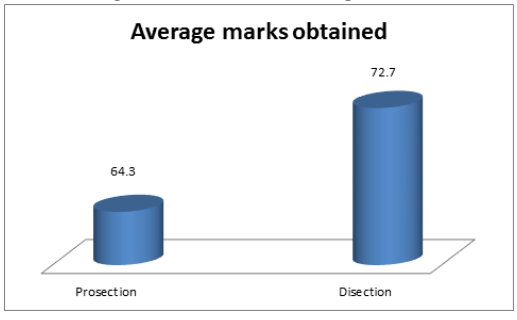
Prior approval of Institutional Ethics committee was taken before commencement of study. The students were briefed upon the study and all those students who volunteered for study were included. A written consent was obtained from participating students. Total of 40 students have volunteered for same. One batch of 20 students were taught superior extremity in Prosection and later on same students were subjected to Dissection for learning inferior extremity. The 20 students were taught superior extremity by dissection and later on inferior extremity by Prosection. The teaching was done in small group.

After each session they were evaluated by practical examination. The practical Examination spotters, viva voce. Their marks were tabulated as per their roll no in two consecutive sessions. Comparison of average of marks obtained by each student in two sessions was done using statistical tools.

RESULT:

The average marks scored by students in two modalities of learning Anatomy were noted. The average marks when students were subjected to learning by Dissection is 72.7 whereas average marks when learning by Prosection was 64.3. The p value for these marks came out to be 0.0007 which proves difference to be statistically significant.

It is observed that the dissection method helped individual student to score higher marks. Batch wise average score is also high in dissection method of learning. These observations are depicted as Chart.



DISCUSSION:

It has always been a matter of Discussion weather to switch to Prosection instead of traditional Dissection. So many factors are attributed for same. Exploration of palpable human anatomy in the dissection laboratory thus addresses the pivotal goal of establishing a comprehension of the three-dimensional relationships underlying clinical applications and practice by physicians-in-training. [4]

Dissection should begin with a complex structure and reduces it in the process of dissection. It has been argued that to facilitate learning of spatial relationships, one should start with visually simplified fundamental lines and symmetrical patterns and build up to the more complex organization [5]

Many authors have advocated the use of Prosection and tried to prove it as superior to Dissection. Students working with prosected specimens have the opportunity to view several variations, rather than the single

variation that may be present in their dissection cadaver. Moreover, students moving rapidly through a dissection using a modern atlas may not recognize or preserve a variation. If the dissection is carried out in the process of developing a teaching prosections, the variation may be preserved for the education of many. [6]

CONCLUSION:

Dissection by students is superior method of learning Human Anatomy

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