

Can The Dead Teach The Living ? - Cadaveric Dissection In Medical Curriculum.

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Abstract : Introduction: Anatomy is the basic subject in the medical curriculum. It deals with the structure of the human body. The study of anatomy enables the student the perfect knowledge of the structural details of the body. From days on anatomy subject is studied by the dissection of the cadavers. The dissected cadavers remain the most powerful means of presenting and learning anatomy. But in the present curriculum because of time, cultural changes , scientific progress, and availability of the cadavers the role of dissection is been declined. Method : A study is done to prove the importance of dissection by giving a questionnaire to a group of 100 people including undergraduates, post graduates and practising doctors of different speciality, super speciality departments. The results are compared with the previous studies and the conclusions are given. Conclusion: instructors are recommended to adequately prepare students mentally and emotionally before the commencement of the dissection session for an exciting and stress free anatomy learning though dissection. [Chandrupatla M et al NJIRM 2013; 4(4) : 100-104]

Key Words: Dissection curriculum, Anatomy , MBBS course

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Introduction: Anatomy, the study of the structures of the human body is one of the first , most basic and important subject studied by medical students when they begin their medical education career. The knowledge of anatomy is essential for proper understanding of the human body for the medical practitioner to accurately define and treat the patient. For this the practice of cadaveric dissection allows the students to grasp the three - dimensional anatomy and concept of biological variability. As it is time consuming process dissection is being sidelined in medical education. Computers and other alternative teaching tools are replacing cadavers in the modern anatomy curriculum. Evidence based literature suggests that cadaver dissection is highly effective in establishing and retaining anatomy concepts. The newer teaching modalities must be reassessed in terms of their affectivity in establishing core knowledge rather than their convenience. The traditional dissection laboratory must remain the centre for teaching and learning anatomy. Besides the subject the cadaver dissection lab is an ideal place to introduce the concepts of humanistic care . The lab atmosphere evokes the students memories , speculations and fears about serious illness in themselves, their families and loved ones.

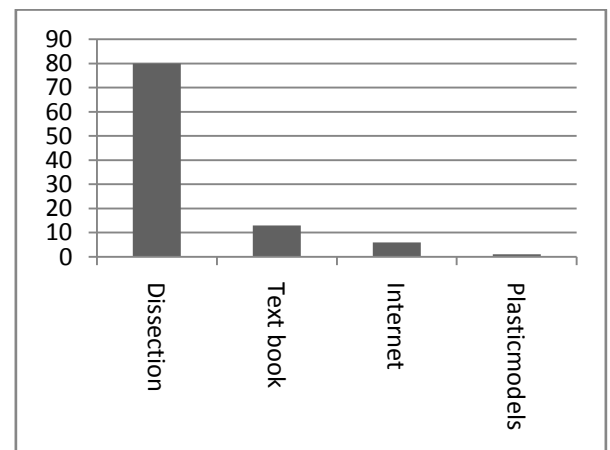
Material & Methods: A study is done in 100 people including the undergraduates , post graduates of various specialities and practising doctors. A questionnaire was prepared which includes

- 1) The personal information
- 2) Questions regarding the merits and demerits of dissection curriculum in the MBBS course
- 3) Opinion on dissection

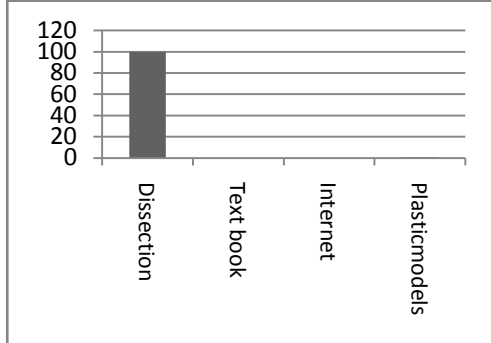
After collecting all the data percentages are calculated and are tabulated.

Result:

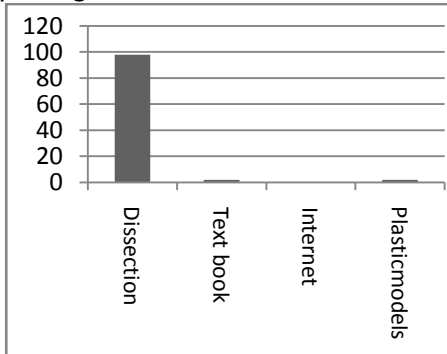
- 1) The best way for long term memory in anatomy



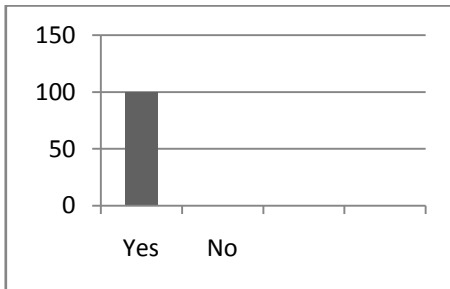
2) Remembrance Of Relation Of Various Structures



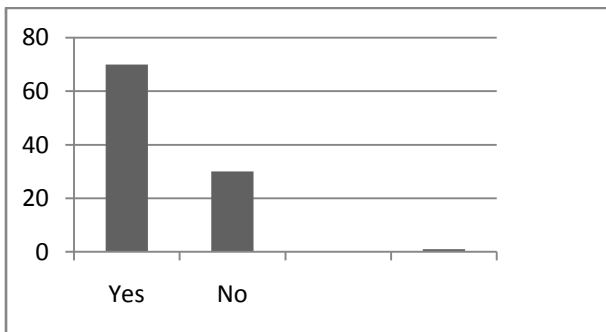
3) Retains, Recollects And Can Reproduce More By Doing



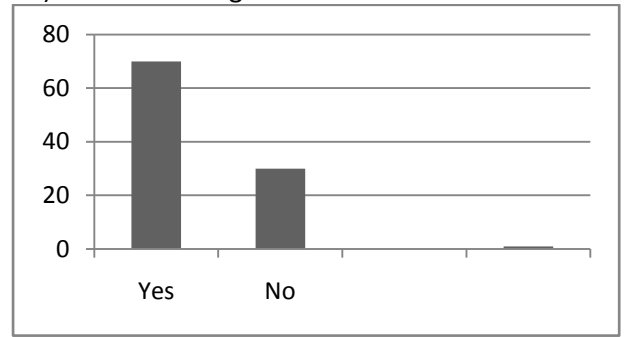
4) Could do well in Exam



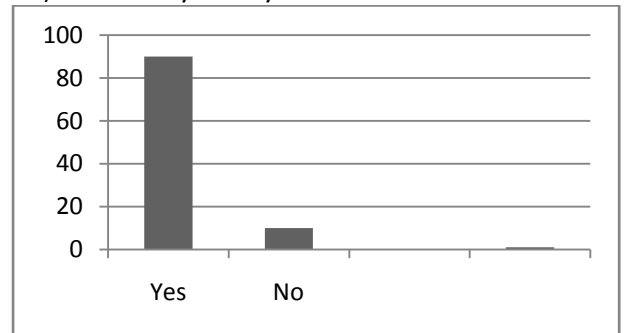
5) Doing Dissection is better or Not



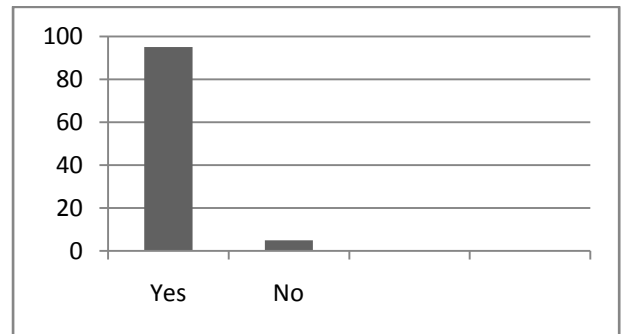
6) Understanding Clinical Problems



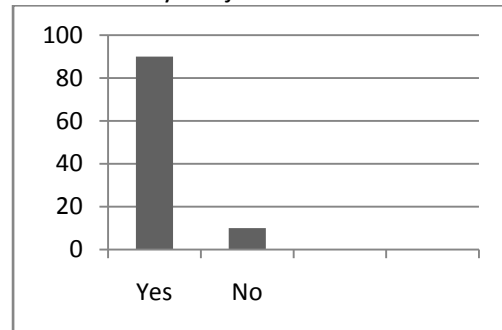
7) Use in Day to Day Practise



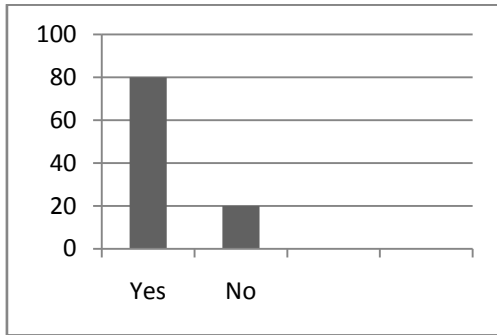
8) Difficulty Of Getting Cadavers In India



9) Clinical post Graduates Require Postings in Anatomy Subject



10) Length of First MBBS Course is Short



Discussion: Anatomy is the major subject in the medical course. The best method to teach anatomy continues to be widely debated. Many medical schools have recently changed their course structure with the use of cadaveric dissection declining. But the professional anatomists viewed dissection to be the most suitable method to fulfil anatomical learning outcomes.

The importance of this is been decreasing gradually because of various reasons like availability of the cadavers, short course, internet etc.

Studies have been done to know the best way of teaching and learning anatomy.

- Eizenberg N et¹⁴ al in 2007 studied in students by making a 5 point likert scale questionnaire. According to him students who have done dissection ranked first 44%, text books 23%, computer aided learning 10%, self directed learning 7% and lecture 5%.
- According to Marks²⁷, "The cognitive morphological information gained during dissection has improved mental imagery and recall capacity".
- Tabinda Hasan et al. made two groups of 120 students each control group and an intervention group. These groups were exposed to different types of anatomy practical activities and then their short and long-term retention of anatomy was tested by two successive exams held at an interval

of 12 weeks. The most common student response was that "the future will bring real live patients and not computers to deal with" and that "simulation and technology can never equate with reality".

- J.E.F. Fitzgerald took the opinions of newly qualified doctors at a UK medical school and relate these opinions to career intentions and academic performance in the setting of a traditional dissection and prosection - based course. Overall nearly half of respondents believe they received insufficient anatomy teaching. A substantial proportion called for the integration of anatomy teaching throughout the medical school course.
- Priti Pandey studied First- year medical students ($n = 97$) at an Australian university completed an online survey including a version of the Study Process Questionnaire (SPQ) that measures approaches to learning. The quality of students' written assessment was rated using the Structure of Observed Learning Outcomes (SOLO) taxonomy. Final examination data were used for correlation with approaches and quality of learning. Students perceived successful learning of anatomy as hard work, involving various combinations of memorisation, understanding and visualisation. Students' surface approach (SA) scores (mean 30 ± 3.4) and deep approach (DA) scores (mean 31 ± 4.2) reflected the use of both memorisation and understanding as key learning strategies in anatomy. There were significant correlations between SOLO ratings and DA scores ($r = 0.24$, $P < 0.01$), between SA scores and final grades ($r = -0.30$, $P < 0.01$) and between SOLO ratings and final grades ($r = 0.61$, $P < 0.01$) in the subject.

Conclusion: A number of medical schools have either removed the practical, hands-on aspect of dissection in the medical undergraduate curriculum or are seriously considering such a measure, on financial and/or human resource grounds. This study highlights the fact that dissection can impart anatomical knowledge as well as offer other relevant, positive learning

opportunities to enhance the skills and attitudes of future doctors.

The result showed that almost all (99%) considered cadaver dissection had very important educational value for anatomy learning. In majority of the students fear and nausea had decreased while interest and excitement had increased on subsequent exposure to dissection. It also showed that chemical odour and eye irritations were the leading factors which create discomfort in the dissection room even though anatomical dissection by itself was not considered as a stressor. Thus, instructors are recommended to adequately prepare students mentally and emotionally before the commencement of the dissection session for an exciting and stress free anatomy learning through dissection.

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