

Revitalizing Anatomy teaching

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Anatomy is one of the important cornerstones of medicine. Traditional way of anatomy teaching using cadavers is universally practiced and has been considered as essential to medical learning (1). In recent time the subject of anatomy occupies a less prominent place within the overcrowded undergraduate medical curriculum paradoxically over the same period the need for detailed anatomical knowledge at postgraduate level has increased dramatically particularly by the developments in imaging and computer assisted three dimensional reconstructions. Anesthetists, surgeons and clinicians have learned to look at familiar structures revealed in new ways such as laparoscopic and endoscopic appearances (2). Failure of adapting other methods in mode of teaching by anatomists might have led the Medical Council of India to reduce period of teaching from one and half to one year.

So it's time to rejuvenate the subject of Anatomy and bring back its glory by using new technologies. The anatomists all over the world are thinking that the curriculum of anatomy has to be modified by incorporating newer fields of clinical significance and making the subject clinically oriented and fascinating to the students and faculty as well.

It is reported that using cadavers and imaging together improves the students' ability to identify anatomical structures and provides long term knowledge retention (3). Anatomy department of Sr. George Institute, Grenada, West Indies, introduced some of the modifications like correlating the cadaver parts with CT, MRI and ultrasound, integrated teaching exercises with pathology, vertical and horizontal teaching and discussing clinical cases.

In a UK based study, portable ultrasound was used to show the normal living anatomy of upper and lower limbs as a part of the practical dissecting room sessions. It was also supplemented with cross-sectional anatomy images along with line diagrams for orientation and to help students correlate ultrasound images and living anatomy. It was found that the confidence of the students to identify structures increased significantly and improved their understanding of anatomy (4). The researchers in United States recommended to introducing ultrasound in preclinical and clinical curricula. The broad goals of this curriculum are two- fold:-

- 1) **Preclinical:** Utilization of ultrasound to enhance student understanding of anatomy, physiology and pathology.
- 2) **Clinical:** Teach students how to use ultrasound effectively as a problem solving tool in the diagnosis of disease. As per them in preclinical year, apart from basic principles, advantages and limitations of ultrasound, the students should be able to identify the classic appearances of normal structures on ultrasound either on live patients under supervision or on recorded examples or video (5).

Anatomy teaching using newer imaging modalities can act as a bridging tool between preclinical and clinical subjects. It will help the student to apply anatomical knowledge during their clinical years of medicine and as clinicians in their future practices. It will also increase the students' awareness about the importance of anatomy in clinical practice.

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