

Anatomy of the Living

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Anatomy is the science of bodily structure. Historically the physicians learn the internal anatomy of the humans by dissecting the dead. With the advent of the microscope the naked observations were extended to the tissue and cellular levels. The development of electron microscopy fifty years back provided details at the sub-cellular level. The major limitation of the two techniques was that they were only possible after the death of the individual or after removing tissue from the living body.

The study of structure during life was only possible during surgery and with advances in surgery this has gained importance in our understanding of the structure of the human body. About hundred years back the discovery of X-rays opened up another dimension for studying the structure of the living human body.

The last few years have seen major advances in our ability to study the internal anatomy of the living person. These include Computerised Axial Tomography (CAT), Magnetic Resonance Imaging (MRI), Positron Emission Tomography (PET) , various modalities of Ultrasound, Angiography and other dye injection techniques and radioisotope scans. Endoscopy. or direct visual examination with the help of fibre-optics has added another dimension to the study of structure of a living person.

These techniques now allow us to study 'functional anatomy' which is much more relevant to daily clinical practice. Unfortunately, these modalities of studying the anatomy of the living are neglected in the undergraduate Anatomy courses.

Parallel developments in technology have now made

it possible to prepare realistic models which can be dismantled and reassembled. Similarly CDs showing different aspects of gross and histology are supplementing the traditional methods of the study of human anatomy. All these developments have now made it possible for undergraduate students majority of whom are going to become Family Physicians-to learn human anatomy without the need of dissecting the dead body.

After these developments I feel the time has come

when the dissection of human body as a requirement of undergraduate teaching should be given up. The moral justification for dissecting a dead body at least for the undergraduate is not there any more. There is some justification for doing so for postgraduates training for surgical disciplines.

The undergraduate anatomy should concentrate on the anatomy of the living and utilize teaching aids like models and CDs as a substitute for dissection.
