

Decline and resurgence of anatomy



In today's world there is a general perception that allopathy is superior to other forms of medical practices such as homeopathy, unani, sidha, ayurveda etc, as it is complemented by surgical skills. Sushruta stated "Surgery is the foremost branch of allopathic medicine as it consists of all that can be found in other branches of medicine and producing instant results, hence commanding the highest value of all the medical tantras".¹

A surgeon cannot move ahead an inch without the precise knowledge of anatomy which is considered as a lifeline of surgery. "He must master vital points (marmas) which are distributed all over the body on vessels, nerves, ligaments, joints, muscles and organs where injury can be incapacitating or fatal. There are 107 such marmas"-Sushruta.¹ Therefore a skilled surgeon must have a sound knowledge of anatomy. Keeping this in mind the post of 'professor of surgery and anatomy' was separated creating a new post of professor of anatomy for the first time in the year 1570 by the insistence of an eminent Italian surgeon Giulio cesare aranzi(1529-1589) who himself held this position.² The basic mode of learning and teaching anatomy since time immemorial has been by prosection and dissection, thus unfolding most of the structures and their relationships which has provided skill to surgeons helping them perform surgeries with minimal complications.

In recent times the subject of anatomy occupies a less prominent place within an 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(both macro and microscopically). Anesthetists, surgeons and clinicians have learned to look at familiar structures revealed in new ways such as laproscopic and endoscopic appearences.³

Although the new imaging techniques such as CT scan, ultrasound, MRI, PET, etc., emerged 20th century onwards but reluctance of anatomists to pay enough interest, adapt and teach anatomy by using these techniques along with dissection. Rather they persisted with the same old mode of teaching, thus losing interest as there was not much to discover in the routine dissections, consequently some of them started teaching material non-pertinent to clinical use, while others started taking an excessive interest in other areas of biological sciences such as cell biology, genetics, immunohistochemistry, HLA, immunology etc. As anatomists did not incorporate newer techniques/methods in their mode of teaching, losing the race so much so that the medical council of India reduced the period of teaching anatomy from one and half years to one year, creating hue and cry among fellow anatomists. However in my view everything is not lost yet, and we can rejuvenate the subject of anatomy and bring back its old glory by adapting and using new technologies (vide supra). The curriculum of anatomy has to be re-prepared incorporating newer fields of clinical significance thus making the subject clinically oriented and fascinating to the students and faculty as well. Further the anatomists should involve themselves more and more in performing and assisting hands on cadaveric workshops for various surgical procedures related to gynecology, orthopedics, E.N.T etc., which not only creates enthusiasm but also bring in a sense of satisfaction among anatomists.

Further we should approach government of India to change the name of 'Anatomy' to 'Fundamental surgery' which seems more logical and meaningful. The medical fraternity and society may benefit enormously by creating sub specialized branches in the field of anatomy such as radiological anatomy, experimental surgery, laproscopic surgery, peadiatric anatomy, geriatric anatomy, forensic anatomy etc. The individuals specializing in these fields may be awarded M.Ch/DM in the respective categories.

Surgeons should practice procedures on cadaveric and animal models prior to a surgery thus minimizing the risks and complications. Few institutions in India and abroad have already started such integration. Surgeons and anatomists should work in conjunction to bring a revolution in medical field and provide better health care to the society. Therefore we the anatomists should take self-interest to sub-specialize in anatomy related to different surgical branches and act as consultants to surgeons and provide intricate anatomical knowledge to surgeons thus being proactive, in sync with clinical branches and resurgence of anatomy.

"The reasonable man adapts himself to the world; the unreasonable one persists in trying to adapt the world to himself. Therefore, all progress depends on the unreasonable man".—G. Bernard Shaw

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