

# Involvement of Anatomists in Mainstream Clinical Practice – Need of the Hour in India

## Editorial

Volume 1 Issue 2

Received Date: May 04, 2017

Published Date: May 25, 2017

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## Editorial

With a population of 1.34 billion, India has become second largest populous country of the world. The current doctor population ratio in India is 1:1700 as compared to WHO norms of 1: 1000. Growth rate of 1.2 % is a pointer to rising need of more medical professionals and a better healthcare system.

Certified doctors of non clinical streams are quality workforces that remain grossly underutilised at a time when health care system in India is collapsing due to paucity of doctors. Any certified medical doctor with necessary training sessions is better qualified and equipped than those who are scarcely bearing knowledge and doing clinical practice. A medical professional whether a surgeon or physician, always work to give disease free life to patients. For this purpose human body is examined clinically and investigations are done to make correct diagnosis and treatment regimen. Human anatomy is essential for all medical streams. But despite being at the base of every subject of medical curriculum an anatomist mostly feels shortage of opportunities after doing post graduations in India. Besides the future in academics, teaching and research, not a single other option is available directly to an anatomist though he/she has been imparted with several skills during the Post Graduation course.

Human Anatomy is one of the basic science subject taught during first two semesters of MBBS course in India. Importance of this subject in medical curriculum is reflected by numbers of hours dedicated to anatomy in comparison to other pre and paraclinical subjects. Total 680 hours are given to anatomy only, as compared to 480

hours for physiology and 240 hours for biochemistry including medical physics and molecular biology.

Anatomy, wrote Vesalius in the preface to his *De Fabrica*, “should rightly be regarded as the firm foundation of the whole art of medicine and its essential preliminary”. Historically, Anatomy departments were among the first established departments in the medical schools.

Human Anatomy includes subdivisions like gross anatomy, developmental anatomy, microscopic anatomy, genetics and living anatomy. An anatomist learns the basic histological staining methods and knows the ultrastructure of different tissues. But this knowledge of the microscopic world which may be used for diagnostic purpose, remain unutilised except its use in research works.

In all the post graduate training programs, the applied aspects of the subjects are included. The emphasis is on the preventive & social aspects and emergency care facilities. Autopsies, biopsies, cytopsies and endoscopic imaging are also included in the training programs. After doing post graduation, an anatomist is equipped with research and data analysis knowledge which is mandatory if clinical research work is to be pursued.

An anatomist can undoubtedly practice general medicine and there are many such examples of anatomists who are doing brilliantly as clinicians and primary practitioners. Then there are few certification programs available in diagnostic radiology, which provide necessary training and eligibility to a medical professional to practice diagnostic radiology including ultrasonography, echocardiography and colour Doppler.

IMA eVarsity program is an applaudable initiative by Indian Medical Association to enhance the knowledge and practical skills of general practitioners. It is a six month certificate course in primary care radiology. Considering the fact that anatomists have the best knowledge of normal and variant human anatomy, they can most certainly prove to be the best sonologists if provided with good basic training.

Like eVarsity program of IMA, certificate courses in other areas like diagnostic cytology; diagnostic endoscopy will be welcomed by all and will encourage more anatomists to join clinical practice.

Clinical genetics is the new emerging medical speciality concerned with diagnosis and counselling of patients with genetic disorder and ironically is the only medical discipline in which anatomists are allowed to do super specialisation. Physical anthropology and related forensic anthropology is yet another area where an anatomist can excel.

One glamorous job any medical person can take is the job of a journalist and medical expert to increase the understanding of health related issues and medico legal aspects, of the general public in view of recent developments in fields of genetics, biotechnology and medicine provided he/she has good knowledge of the subject and likes the limelight of the media.

Sports and exercise medicine is a new branch of medicine that deals with treatment and prevention of injuries in sports persons and needs extensive knowledge of musculoskeletal system. Specialisation in this branch is currently available for post graduates of other streams

like orthopaedic. Anatomists, who have good knowledge of working mechanism of human body should be allowed for specialisation in such branches.

Similarly, Bio informatics, Tissue engineering, human nutrition, Ethics and Medical education, Assisted Reproductive techniques are few of the many fields where we can achieve what we aspire to.

In its Vision -2015, MCI has felt the need to start new diploma courses in medical disciplines where an acute shortage of specialist is obvious including Anatomy but without providing vocational opportunities, the success of such initiatives is doubtful specially in current scenario, when the seats of degree courses in preclinical subjects have failed to lure medical graduates and mostly remain vacant.

The Medical Council of India emphasises the need of Basic Doctors who can function appropriately and effectively as physicians of first contact at community level.

Who can be more 'skilled' and 'motivated' basic doctor than an anatomist who has the desirable skills and clinical training sufficient to be a physician of first contact and knowledge of human body at par or better than specialists of any field. It is time for us to rise and regain our position in the medical profession to boost the falling healthcare system and also to satisfy the clinical bug inside us.

A positive interference by government in the form of more short term certification programs will give long due opportunities to anatomist besides giving quality doctors to the population.