

Decline in Interest of Medical Graduates to Do Postgraduation in Anatomy and How Do We Resolve It?

Introduction

The most important goal of medical education is to produce excellent physicians.^[1] The anatomy is traditionally taught at the beginning of MBBS course to provide the basis of medicine and medical language used in clinical practice to lay the foundation of medical education. All clinical subjects, viz., medicine, surgery, obstetrics and gynecology, ENT, orthopedics, ophthalmology, neurosurgery, and radiology, emerge from anatomy and vice versa. The physical examination by physicians requires in-depth knowledge of anatomy. The signs and symptoms are analyzed on the basis of anatomical knowledge. This brings out the application of anatomy in diagnosis of disease and disease processes. The lack of anatomical knowledge prevents one from becoming a skilled doctor.^[2] Although the anatomy as a subject has always been the cornerstone of medical education for more than 100 years, it has been firmly set on the back burner in recent times.^[2]

Decline

Around the world, in recent decades, it is strongly felt that the medical students are being provided inadequate knowledge of clinical anatomy. This could be due to many reasons, viz., squeezing of time table, limited exposure to dissection to study macrostructures,^[3] and lack of horizontal and vertical integration.

The entry of nonmedical teachers and forced research has further deteriorated the clinical skills. Waterson and Stewart in their study found that a healthy proportion of clinicians are concerned about what is going on in the anatomy department and they are themselves keen to be involved in teaching anatomy.^[4]

According to Cottam from the United States, most of the recent medical graduates are inadequately equipped with anatomical knowledge to do medical practice safely.^[5] Therefore, it is felt by most of the physicians that clinical-oriented anatomy should be taught in detail to the medical students.

Medical Graduates and Faculty

The younger generation of medical graduates is well equipped with progressive ideas, energy, and quest for achievements. By doing graduation, they are fully allowed to do clinical practice and can do various short-term courses in different clinical fields such as diploma, fellowship and certificate courses in Emergency Medicine, Critical care medicine, Radiology, Ultrasonography etc. run by well-established corporate hospitals.

On the other hand, after doing postgraduation in anatomy, they join as medical teachers in various medical institutes and are totally deprived of seeing patients, which they are ought to see as medical doctors. As a result, they become subdued subconsciously and fail to give their best. Let us not forget that students join medical profession to become clinicians and not the teachers. It is beyond anybody's imagination that, on the one hand, we are short of clinicians while, on the other hand, the qualified doctors are becoming nonclinicians. In these circumstances, how can we expect them to teach clinical anatomy in its real sense. This has led to decline in interest of medical graduates to do postgraduation in anatomy.

All over the world, it is strongly felt that clinical anatomy can be taught only by medical doctors. For the past decade, there is general feeling among clinicians that medical schools are providing inadequate anatomy teaching to students to equip them for practice. Action must be taken to remedy this, or it will have potentially serious implications for medical profession and public at large. One should always keep in mind that knowledge of anatomy is the key to concept of safety to practice. It has been suggested that there is steadily increasing trend of litigation for alleged surgical malpractice maybe in part due to anatomical ignorance.^[6,7] It was found that most common reason for litigation was damage to an underlying structure, for example, ligation of femoral vein instead of long saphenous vein during varicose vein surgery or damage to accessory nerve during open lymph node biopsy.^[7]

Passive Attitude of Policymakers

In spite of anatomy being the edifice of medical education, it has not been given proper attention by policymakers for a longtime probably because most of members in various committees looking for medical education in India are clinicians. They are so involved in their work that they hardly have time to look after progress, change, and future of preclinical subjects (viz., anatomy) in India.

Recently, not only anatomists but clinicians also feel that anatomy is in a state of acute crisis. It appears to be slowly dying and struggling for survival. Therefore, policymakers need to do something to save the past glory of anatomy.

Potential Solutions

The hazardous decline in interest of medical graduates to do postgraduation in anatomy can be contained by following proposed suggestions.

1. By introducing specialty and superspecialty (Mch/DM) courses such as radiological anatomy, ultrasonography,

geriatric anatomy, experimental surgery, laparoscopic anatomy, and *in vitro* fertilization for MD/MD Anatomy postgraduate^[8]

2. The anatomy teaching should be spread throughout the medical curriculum, especially during the 3rd and 4th year. It should be subject related, viz., anatomy for general surgeons, orthopedic surgeons, ophthalmologists, radiologists, ENT surgeons, obstetricians, etc.
The cadaveric workshops should be held to develop surgical skills.
3. They should be allowed to do clinical practice after college hours, with handsome monetary incentive
4. Each faculty should be posted in general outpatient department at least twice a week. They should see and prescribe medicines to general patients and refer the complicated cases to the concerned specialties and superspecialties
5. They should be allowed to do practice in radiology and ultrasonography after 6 months of special course in concerned departments
6. After postgraduation (MS/MD) in Anatomy, the students should be allowed to do:
 - a. Diploma in Orthopedic, ENT, Ophthalmology, paediatrics etc by bridge course.
 - b. Postgraduation in clinical subjects that are inseparably linked to anatomy such as MS (General Surgery) MS (Orthopedic Surgery), MS (ENT), MD Radiology, MD Ultrasonography, and MD reproductive medicine in a stipulated time especially in last 3 subjects to begin with.

Conclusion

The medical postgraduates (MS/MD) in Anatomy should be given their long due right which they deserve, and extra incentives (*vide supra*) to arrest for decline in interest among medical graduates (MBBS) to opt for postgraduation (MS/MD) in Anatomy.

Vishram Singh

Department of Anatomy, KMC Mangalore, Manipal Academy of Higher Education, Karnataka, India

Address for correspondence: Dr. Vishram Singh,

Editor-in-Chief, JASI, OC-5/103, 1st Floor, Orange County Society, Ahinsa Khand-I, Indirapuram, Ghaziabad, NCR - 201 014, New Delhi, India.
E-mail: drvishramsingh@gmail.com

References

1. Yammine K. The current status of anatomy knowledge: Where are we now? Where do we need to go and how do we get there? *Teach Learn Med* 2014;26:184-8.
2. Singh R, Shane Tubbs R, Gupta K, Singh M, Jones DG, Kumar R, *et al*. Is the decline of human anatomy hazardous to medical education/profession? – A review. *Surg Radiol Anat* 2015;37:1257-65.
3. Kulkarni Jyoti P. Importance of cadaver dissection – A brief review report. *SMU Med J* 2014;1:128-31.
4. Waterston SW, Stewart IJ. Survey of clinicians' attitudes to the anatomical teaching and knowledge of medical students. *Clin Anat* 2005;18:380-4.
5. Cottam WW. Adequacy of medical school gross anatomy education as perceived by certain postgraduate residency programs and anatomy course directors. *Clin Anat* 1999;12:55-65.
6. Ellis H. *Medicolegal Litigation and Its Links with Surgical Anatomy Surgery*. Vol. 20. Abingdon: The Medicine Publishing Group Ltd.;2002. p. i-ii.
7. Goodwin H. Litigation and surgical practice in the UK. *Br J Surg* 2000;87:977-9.
8. Singh V. Decline and resurgence of anatomy. *J Anat Soc India* 2015;64:1-2.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

Access this article online	
Quick Response Code: 	Website: www.jasi.org.in
	DOI: 10.4103/JASI.JASI_133_19

How to cite this article: Singh V. Decline in interest of medical graduates to do postgraduation in anatomy and how do we resolve it? *J Anat Soc India* 2019;68:97-8.