

Anatomy: The Basis for Orthopedic Practice

Namita Alok Sharma*

Associate Professor, Department of Anatomy, Bharati Vidyapeeth Deemed University, Dental College and Hospital, Pune, India

***Corresponding Author:** Namita Alok Sharma, Associate Professor, Department of Anatomy, Bharati Vidyapeeth Deemed University, Dental College and Hospital, Pune, India.

Received: March 22, 2017; **Published:** April 18, 2017

Medical education and the subsequent practice of the same, is increasingly becoming compartmentalized into isolated areas of expertise. Such lack of holistic approach is leading to a dangerously tubular vision while treating various ailments. This is a global malaise and a collective effort to overhaul the curriculum would be a welcome change in the scenario.

The practice and knowledge of orthopedics is largely based on anatomical understanding. A sound and lucid comprehension of the general architecture of the human body, attachment of muscles and their bio mechanics, functional aspect of ligaments of various joints, vasculature and healing capacities of different bones is crucial for a post graduate student of orthopedics.

Such knowledge must have its base in the initial period of under graduate training which, unfortunately, remains largely confined to the dissection halls. At such time, the student is keen on gleaning mundane information on the subject with a firm eye on the examinations he or she would require passing in order to proceed in the course. A variety of books on the subject have been penned and published which present human anatomy as a set of dry facts, which, when learnt by rote, guarantee to propel the students with impressive marks onto the next stage; with no pertinent knowledge of the subject.

It would be desirable to initiate a semi vertical teaching system of sorts wherein, the under graduate student is exposed to the applicative importance of the anatomical facts he or she is assimilating. Keeping in mind time constraints, even a minimal contact between students and relevant patients at this early stage, would help the student correlate structural facts with the functional aspects.

More importantly, it might serve to plant the seed of a desire to pursue a surgical specialty, or conversely, awaken the realization of not having the calling for the same. It is of utmost importance for the students to know where their talents lie. Many a time one encounters specialist square pegs in round holes; the ultimate tragedy in a beautiful profession.

At the post graduate level, a brief refresher course inclusive, if possible, of cadaveric dissection would stand the student in good stead. Apart from the normal anatomy, the various aberrations and variations are also important to note. Deep insight of the musculoskeletal system, the bio mechanics of the normal as well as the abnormal can be dealt with in great detail and would provide a strong foundation for the clinical aspect of the subject. This might be the curricular norm in many institutions, but, unfortunately, not diligently followed by most.

From the academic point of view, the phylogeny of the concerned anatomical region is not only interesting but provides insight into the functional aspect of the structure. An example that comes to mind is the genua cruciate ligaments in man and chimpanzees. Interestingly, in both, the ligaments have similar femoral and tibial attachments except the femoral attachment of the posterior ligament which, in chimpanzees, is more anteriorly and centrally located permitting the tibia a greater degree of medial rotation as compared with the

human model [1]. Further, this slight shift of the ligament, relative to the axes of joint movements, results in the inability of the chimpanzee to fully extend the knee joint for the purpose of locking; an act which, in any case, is not a habitual requirement for the great ape.

The purpose of the above illustrative example is to drive home the importance of knowing the anatomy of not only the normal, but also the phylogenetic, variant and abnormal anatomies for a well-rounded approach to the orthopedic specialty.

Bibliography

1. Aiello L and Dean C. "An Introduction to Human Evolutionary Anatomy". Elsevier London (1990): 483-507.

Volume 6 Issue 1 April 2017

© All rights reserved by Namita Alok Sharma.