Student learning performance in human anatomy using a virtual dissection table

Guido Macchiarelli¹, Sara Bernardi¹, Maria Adelaide Continenza¹, Jasmine Di Biasi¹, Maria Grazia Palmerini¹ and Serena Bianchi¹

¹Dept. of Life, Health and Environmental Sciences, University of L’Aquila, L’Aquila, Italy

In medical training it is fundamental to have a 3D understanding of human anatomy [1]. Body dissection is considered mandatory in most of the bio-medical schools. Medical schools around the world, constantly face the problem of availability of the cadavers. Apart from the classic methods (lectures, podcasts, atlas or photographs, models) technology advances made available new instruments to learn/teach 3D anatomy, which allow cadaverless dissection with the help of simulator software or virtual cadavers. The Anatomage® and Sectra® tables are advanced anatomy visualization systems, adopted by many of the world’s leading medical schools and institutions [2,3].

Here we report our experience with Anatomage® during the Academic Year 2016-17, in the Postgraduate Courses of Medical and Surgical Specialization, Master degrees in Medicine, Dental Medicine, Biology of Health and Nutrition, as well as Basic Degrees in Nursing and Biotechnology, of the University of L’Aquila. We enrolled 30 MD postgraduate students, and 440 undergraduate students. Both postgraduate and undergraduate medical students were allowed to handle the table. The other students assisted to class table demonstrations. An evaluation test was administered to all students at the end of the Courses.

Our preliminary observations suggest that the use of virtual dissection table into the anatomical curriculum improves the learning student performance. Each student have a different set of needs, and the base line skills may be different. So, the teacher should take in consideration the variable scope of practice of the specific health professions. We are currently evaluating the efficacy of this technology at the end of the examinations. In the present preliminary report, we account with our results that are indicative of a positive impact on both basic and advanced anatomical learning.

References


Keywords

Virtual dissection table, teaching methods, gross anatomy, clinical anatomy