Medical illustration in anatomical variations

Seda Uygun

Uygun S. Medical illustration in anatomical variations. Int J Anat Var. 2017;10(3):55.

The history of anatomic variations is as old as the history of anatomy. Vesalius, considered the initiator of the modern age of the anatomy, has done many dissections on human body. He has named the structures he found and made them draw to painters to make his students understand better. He were able to make comparisons in dissections and mentioned the occurrence frequency of structured by the adverbs like 'always', 'often', 'generally', 'frequently', 'rare', etc. but never used the word "variation" (1,2).

Dissections have been done for centuries and new imaging techniques resulted in the terms normal, abnormal and variation. Anatomical variations are naturally-occurring deviations from typical human anatomy and a variation can both make differences in symptoms of disease and can cause to change the surgical technique to be applied (3-5). Visualization of the anatomic variations by medical illustrator will make the structure be better determined.

Medical illustration is the visualization of structure and details of human body. Artists have illustrated the structure of human body for about 2000 years ago. By the time the quality and accuracy of the illustration increased. Leonardo Da Vinci (1452-1519), was an anatomist and an illustrator. His anatomical drawings include many studies of the human skeleton and its parts, and of muscles and sinews (6). In 1700s Bernhard Siegfried Albinus worked with Jan Wandelear, an artist and engraver, to increase the scientific accuracy of anatomical illustration (7). In late 1890s, Max Brödel, a talented artist and known as father of modern medical illustration, made medical illustrations for clinicians in Baltimore. He created new techniques such as carbon dust and improved medical illustration (8).

Nowadays, the improvement in computer graphics and imaging techniques are providing a new era for medical illustration. Visualization becomes inevitable for better understanding. Medical illustration makes medicine education more content rich. Medical illustrators form visual translations of complex technical information in medicine. The imagery that they produce advances medical science and clarifies health knowledge for patients and public (9). Patients have much clear information about their health state and medical options. Since anatomical variations are not common, they should be well understood and medical illustration is a good way to succeed this goal. An article about anatomical variations is incomplete without visualization. We, as the International Journal of Anatomic Variations hope visually more rich publications and we look forward to help in terms of medical illustration as we could afford to.

References

- 1. Vesalius A. De Humani Corpori Fabrica. Spanish Edition., Madrid, Editorial Ebrisa. 1997
- Straus WL, Temkin O. Vesalius and the problem of variability. Bull History Medical. 1943;14:609-33.
- Chiang FY, Lu IC, Chen HC, et al. Anatomical variations of recurrent laryngeal nerve during thyroid surgery: how to identify and handle the variations with intraoperative neuromonitoring. Kaohsiung J Med Sci. 2010;26:575-83.
- Irene A, Theodoros K, Konstantinos N. Pulmonary vein anatomicalvariation during videothoracoscopy-assisted surgical lobectomy. Surg Radiol Anat. 2017;39:229-31.
- 5. Watson CJ, Harper SJ. Anatomical variation and its management in transplantation. Am J Transplant. 2015;15:1459-71.
- 6. West JB. Leonardo da Vinci: engineer, bioengineer, anatomist, and artist. Am J Physiol Lung Cell Mol Physiol. 2017;312:392-7.
- Hildebrand R. Attic perfection in anatomy: Bernhard Siegfried Albinus (1697-1770) and Samuel Thomas Soemmerring (1755-1830). Ann Anat. 2005;187:555-73.
- 8. Wolff M, Radwan H. Max Brödel (1870-1941): his life and contribution to the development of modern surgery. Chirurg. 1997;68:840-7.
- 9. http://www.ami.org/medical-illustration/learn-about-medical-illustration

Medical Illusturator, Specialist in Anatomy, Ankara, Turkey

Correspondence: Dr. Seda Uygun, Medical Illusturator, Specialist in Anatomy, Ankara, Turkey, Telephone +90-5439694185, e-mail: seda.gulbar@gmail.com



This open-access article is distributed under the terms of the Creative Commons Attribution Non-Commercial License (CC BY-NC) (http:// creativecommons.org/licenses/by-nc/4.0/), which permits reuse, distribution and reproduction of the article, provided that the original work is properly cited and the reuse is restricted to noncommercial purposes. For commercial reuse, contact reprints@pulsus.com