SynDaver®: as a tool for anatomical teaching and medical education

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SUMMARY

The teaching of human anatomy is done through virtual dissection tables, 3D models and the use of synthetic cadavers as effective tools that can help integrate morphological, surgical and clinical processes. On the other hand, synthetic cadavers must remain submerged in running water with common table salt and liquid detergent, while not in use, to keep them fresh and flexible for dissections. In the anatomy laboratory of the University Cuauhtémoc San Luis Potosí, Mexico, we use this type of synthetic cadavers for practical classes. Various procedures are performed, such as dissection of the abdominal cavity, dissection of muscles of the dorsum, spine, face and neck, and suture workshop.

Mr. Editor,

Nowadays, the teaching of human anatomy is carried out through virtual dissection tables, 3D models, and the use of synthetic cadavers as effective tools that can help to integrate morphological, surgical, and clinical processes (Hecht and Larrazábal, 2018). Synthetic cadavers are very popular in America and Europe, where they are known by the SynDaver® brand. These models must remain submerged in running water with common table salt and liquid detergent, while they are not in use, to keep them fresh and flexible for dissections (Richardson et al., 2020; Gregory et al., 2020). On the other hand, this type of cadaver is increasingly being integrated into practical anatomy classes, becoming a useful tool when dissection practices are made in different anatomical planes, the vascular system, and the nervous system.

In the anatomy laboratory of the University Cuauhtémoc San Luis Potosí, Mexico, we use this type of synthetic cadavers for practical classes. Several procedures are performed, such as dissection of the abdominal cavity, dorsum muscles dissection, spine, face-and-neck and suture workshop (Fig. 1).

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Fig. 1.- Medical students dissecting dorsal muscles on the SynDaver model.

Taking the foregoing into consideration, anatomy students have been found to read more and perform better on final exams when dissecting these types of synthetic cadavers, compared to 3D models and anatomical drawings. Dissection facilitates learning, manual training and reduces errors in the surgical field in medical practice. We should preserve this type of practice and consider the synthetic cadaver an effective teaching-learning tool for the basics of anatomy.

Finally, the SynDaver® synthetic cadaver cost is very high. However, it allows medical students to know the morphology and tissue consistency in conditions similar to those of a real cadaver, but without the disadvantages of real cadavers such as their fixation in formaldehyde, as these solutions are toxic, carcinogenic and change the color of fresh tissues.

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