

Gross anatomy study on isolated formalin-fixed anatomical preparations

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The anatomic dissection has always had a crucial role in teaching gross Anatomy in medical academic courses. Nowadays the easy availability of several programs of virtual dissection together with the difficulties in finding useful human bodies as well as the complicated procedures of preparation, make anatomic dissection practice barely available in our Universities. The use of dissected preparations obtained from isolated organs or well-defined anatomical regions rather than the use of whole cadavers may be useful in many instances to overcome the difficulties described above. In particular, the long-established use of formalin-fixed specimens may still represent an easy and useful support to teach gross anatomy. However, due to its toxicity and cancerogenic activity, formalin use as a fixative has been recently strongly restricted, making both dissection as well as prosection of formalin-fixed specimens difficult to be performed. The E. Morelli's Museum, located in the C. Forlanini Hospital of Rome, contain a collection of anatomical preparations dating back to the half of past century, which represents not only a historical but also a scientific and didactic patrimony. This collection includes over one thousand of anatomical preparations, the majority of which are fixed and stored in unsealed glass vase. Furthermore, at present most preparations, many of which are of admirable workmanship, are abandoned. Therefore, on behalf of Sapienza University of Rome, during the last months we are engaged in the recovery and safeguard of these specimens. The procedures we are using include systematic cataloguing of all specimens, adding with photograph and comments as well as several recovery treatments, tailored to the singular specimen condition (change or recovery of split vases, complete or partial change of fixative fluid, improvement of the presentation of anatomical preparation, etc.). All vases were finally filled up with fixative and sealed with a synthetic resin, which polymerizes under water. This procedure of airtight closure of vases prevents any dispersion of formalin gas in the air, making anatomical preparations available for educational as well as museum purposes. Our final goal is the recovery, restoration and cataloguing of these preparations in order to reevaluate the Anatomic Museum center as the foundation of Medical school training.

Keywords

Gross anatomy, Anatomical Museum, dissection, didactic center