

DISSECTION AND PREPARATION OF VISCERA FOR PLASTINATION

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AIMS

- 1- Get a better understanding of the system coronary dissection, one of the most important from the point of anatomical and functional aspects.
- 2- Learn the plastination technique applying on a previously dissected equine heart.

MATERIALS AND METHODS

- 24 February 2015 we obtained a sample of a heart horse of the Fifth Quarter Slaughter (Sabadell).
- We used the protocol plastination technique S-10 (BIODUR) of the University of Murcia.

Fixation: the heart was fixed in 4% formaldehyde solution.

Dissection

Dehydration: The heart was dehydrated in cold (-25°C) in a 90%, 96% and 100 acetone bath.

Impregnation: the heart was placed in the silicone resin (BIODUR S10+ S3 catalyst) in the vacuum chamber at -25°C.

Curing: Excess resin was drained from the sample.

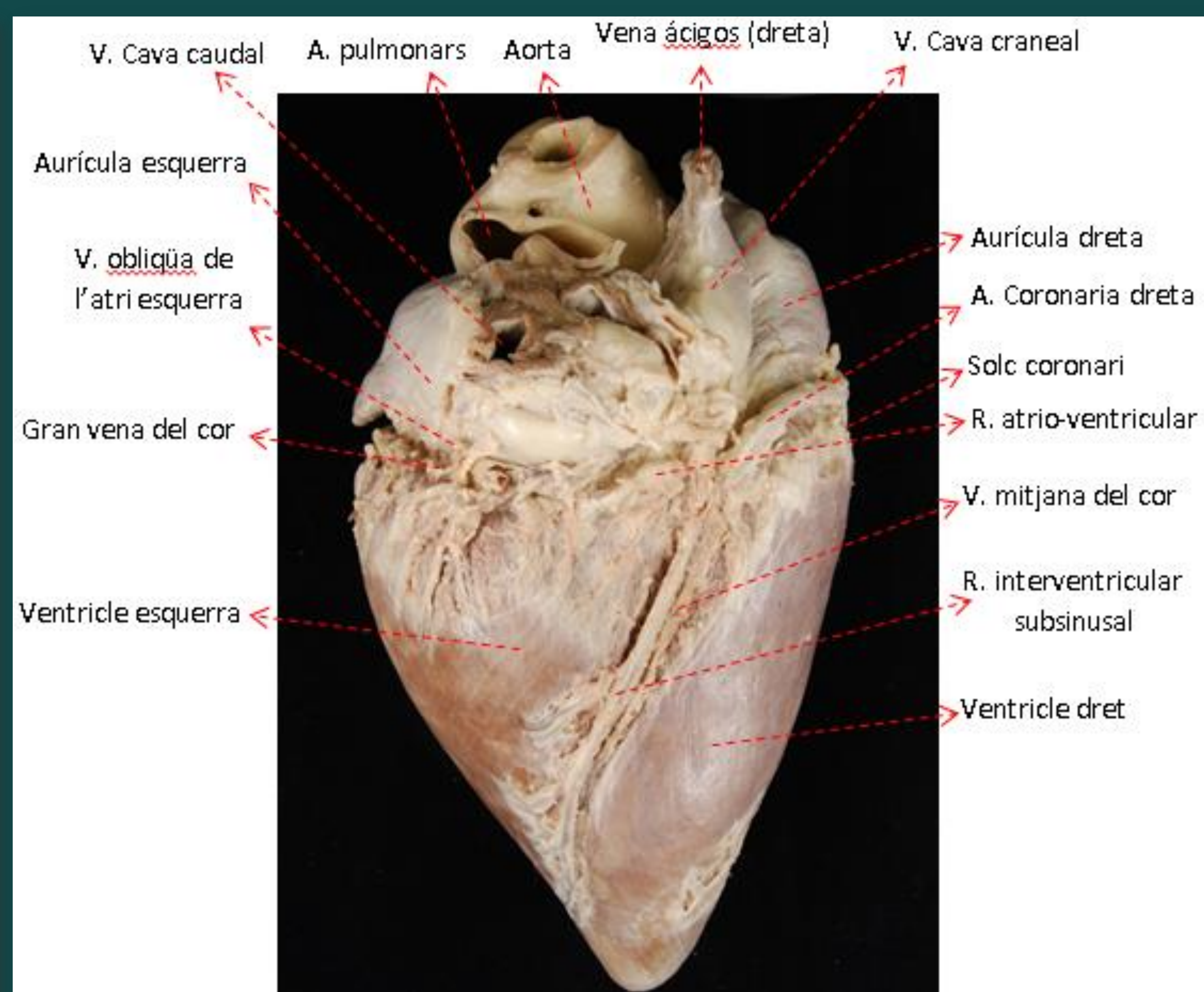
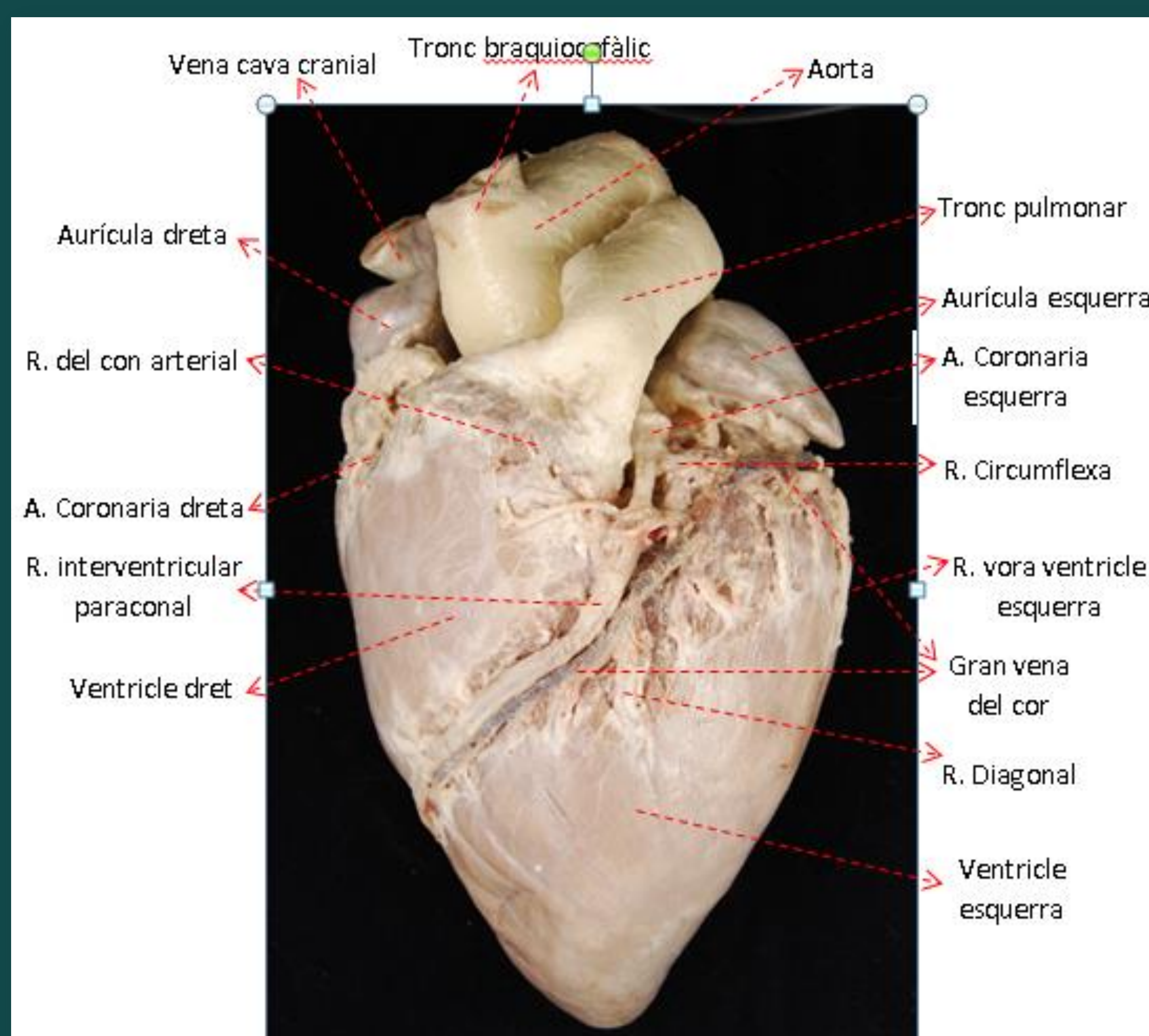
RESULTS AND DISCUSION

Throughout history there have been various conservation methods. The traditional technique, the conservation with formol, causes toxic fumes and requires much maintenance. Contrary, the plastination technique, has been observed that the heart volume and shape remains the same as before the plastination, avoiding the possible retraction. In addition, the texture and the color remains very similar to the natural piece.

Plastination technique there are no toxic odors or vapors produced, such as natural preservatives (formaldehyde, phenol). The color also remained similar to the original, without suffering any darkening or brightness, which would cause poor display of anatomical structures.

The weight of horse heart in relation to body weight is between 0,6 and 1%. It has conical shape and the amount of fat might vary depending on the breed. The fat is soft and yellowish.

One of the most specific things of equine is that it have a double cardiac vascularization.



CONCLUSIONS

The plastination improves workplace safety, (workers and students), the environment and reduction the number of animals for teaching.

Sample plastinates are permanent, clean, non-toxic and durable. Easy handling and examination of specimens without any noxious effects makes plastination an excellent adjunct to the teaching of anatomy.

Plastination of a horse heart shows the technique to produce a plastinate sample and the steps throughout the process.