ANATOMY MUSEUM DEVELOPMENT TECHNIQUES

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ABSTRACT
Anatomy museum is very effective teaching and learning resource. A student can understand the structure of human body parts very clearly which he has already studied theoretically by observing the models, charts, casts, specimens etc. in museum. In this article procedure for specimen mounting, lumen cast plastination is given.

KEYWORDS: cadaver, specimen, cast, museum.

The subject Rachana sharir (Anatomy) in curriculum of medical & paramedical students deals with the study of gross & microscopic aspects of human body.

Preparation of specimens

Materials
Cadaver, scalpel, tooth & plain forceps, etc dissection tools, for coloring- fabric colors, Brushes, preserving solutions.

Methods
The specimens are dissected out should be from well embalmed (preserved) body.
Acharya Sushruta gave guidelines for selection of cadaver (dead body) as follows\textsuperscript{[1]}

1) \textit{Samastagatram} - cadaver with all body parts
2) \textit{Avishopahatam} - death of cadaver should be natural and not by poison.
3) \textit{Adirgha vyadhi pidi tam} – body with chronic diseases should not be selected.
4) \textit{Awarshashatikam} – should not too old above 100 years.

So, proper selection of cadaver is important task in anatomy dissection.

Keeping in mind which part of the body and structures to be displayed one should dissect carefully so that most of the fat connective tissue is removed and all the structures are visible, then separate that specific structure from cadaver. Some important structures or impressions on that specimen can be colored with fabric colors but color should not reduce the originality of specimen. After drying, it will mounted in jar.

Specimens of the brain & spinal cord dries very fast when exposed to air so should not allow to dry and should be immersed in water immediately after dissection.

Specimens are usually preserve or mounted in Kaiserling I or II solutions or mixture of 20\% formalin & 80\% water.

**MOUNTING OF SPECIMENS**

**Materials**
Dissected specimen, acrylic jar with acrylic sheet, threads, fevikwik. Preserving solutions- kaiserling I or II solutions, or 20\% formalin, 80\% water.

**Methods**
The specimen before mounting should be examined thoroughly so that they are clearly visible. All fascia should be removed from specimen.

Specimen to be mounted is usually stitched or fixed to the plate of acrylic sheet with the help of threads and fevikwik. After fixation it will mounted in appropriate size jar filled with above mention preserving solutions.

**LUMEN CAST PLASTINATION**
Luminal structures like trachea- bronchial tree, chambers of heart etc can be studied by taking a cast of the same.
**Materials:** fresh specimen, silicon sealant, 10% KOH solution.

**Methods:** The cast of trachea-bronchial tree using fresh goat lung can be taken.

Lungs are thoroughly washed with water & heparin. Then inject the silicon sealant in to trachea. kept the specimen for 2 days then specimen is immersed in 10 % KOH solution for tissue disintegration that leaves behind the cast of the trachea-bronchial tree. By same method cast of human cadaveric heart can be obtain by injecting silicon sealant through vessels connected to heart i.e. pulmonary vessels, aorta, superior vena cava.

**REFERENCES**

2. Recent advances in embalming and museum development techniques, 17.