Міністерство освіти та науки України
Сумський державний університет
Медичний інституту

АКТУАЛЬНІ ПИТАННЯ ТЕРЕТИЧНОЇ ТА ПРАКТИЧНОЇ МЕДИЦИНИ

Topical Issues of Clinical and Theoretical Medicine

Збірник тез доповідей
IV Міжнародної науково-практичної конференції
Студентів та молодих вчених
(Суми, 21-22 квітня 2016 року)

ТОМ 1

Суми
Сумський державний університет
2016

PLASTINATION TECHNIQUE

Unawunwa Franklin, student grp 419
Head teacher - Sulim L.
Sumy State University, Department of Human Anatomy

Plastination is a technique or process used in anatomy to preserve bodies or body parts, first developed by Gunther von Hagens in 1977. The water and fat are replaced by certain plastics, yielding specimens that can be touched, do not smell or decay, and even retain most properties of the original sample

There are five steps to achieving a good plastination

1. Fixation
2. Dehydration
3. Forced impregnation in a vacuum
4. Positioning
5. Hardening/ Curing

Fixation, frequently utilizing a formaldehyde based solution, serves two functions. Dissecting the specimen to show specific anatomical elements can be time consuming. Formaldehyde or other preserving solutions help prevent decomposition of the tissues. They may also confer a degree of rigidity. This can be beneficial in maintaining the shape or arrangement of a specimen. A stomach might be inflated or a leg bent at the knee for example.

After any necessary dissection take place, the specimen is then placed in a bath of acetone. Under freezing conditions, the acetone draws out all the water and replaces it inside the cells

In the third step, the specimen is then placed in a bath of liquid polymer, such as silicone rubber polyester or epoxy resin. By creating a vacuum, the acetone is made to boil at a low temperature. As the acetone vapourizes and leaves the cells, it draws the liquid polymer in behind it, leaving a cell filled with liquid plastic.

In the next step the specimen is positioned into the final posture. With needles and clamps muscles are put back into the desired position.

The plastic must then be cured with gas, heat, or ultraviolet light in order to harden it.

Specimen has to be set in desired pose. All anatomical structure has to be set in the correct position.

Designing is an intellectual and artical achievement needing a strategic planning and careful review to ensure that the result is aligned with the overall image.

Producing a whole body plastination requires an average time of 8-12 months.

In conclusion

1. The human body reflects our innermost nature, its growth, death, external beauty and fascination of organs has arouse man’s curiosity for many years.
2. Plastination allows the body to be shown in cross section. The body becomes visible layer by layer making position of organs and other structures clear.
3. Thanks to plastination technique our body internal structures can be displayed in a way that is more fascinating.

VIMENTIN EXPRESSION OF PARENCHYMAL CELLS AND STROMAL CELLS OF DUCTAL BREAST CARCINOMA: COMPARATIVE CHARACTERISTICS

Lazaruk O.V.
Department of Pathologyc anatomy
Higher State Educational Establishment of Ukraine
«Bukovinian State Medical University»

Ductal breast carcinoma ranks first among all malignant tumours of the reproductive system in women. To study the processes that occur when changing the normal structures gland tumor should be considered in the processes that occur in the tumour site and area around the tumour. To study the transformation in the fabric around the tumour is widely used immunohistochemical