

99. The histogenesis of human liver a perspective study on organization of hepatocytes and portal triad

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Background: Liver is the largest compound gland in the body. It plays a major role in metabolism and has a number of exocrine and endocrine functions in the body. It is known that function of an organ depends on histological maturation of that organ. By studying the microscopic structure of liver at various fetal ages will help to establish the time when the liver becomes fully functional.

Aim: To study the histogenesis of human liver a perspective study on organization of hepatocytes and portal triad.

Objectives: The histogenesis of liver at different stages of prenatal period is studied under: Organization of hepatocytes and plates of cells, appearance of central veins and sinusoids, and formation of portal triad/tract.

Materials and Methods: In the present study, 50 stillborn fetuses and fetuses of spontaneous abortions were obtained from the department of obstetrics & gynecology, Armed Forces Medical College and Command Hospital, Pune. After fixation, fetuses were carefully dissected, liver was taken out and placed in containers with 10% buffered formalin solution for 2–4 days, these livers were then processed to obtain thin sections. Sections were stained using Haematoxylin & Eosin, Periodic Acid Schiff (PAS) and examined under light microscope.

Results & Conclusion: Organization of hepatocytes, appearance of central veins and endothelial lining of sinusoidal wall was noted at 12–18 weeks of gestation. The appearance of portal tract to form the classical hepatic lobule was identified first at 22 week stage. These findings were in concurrence with the previous studies done by earlier workers, which correlates with the functional maturation of the liver mentioned in literature.

100. A comparative study of effect of tobacco chewing on buccal mucosa amongst people attending SMS Hospital, Jaipur

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Introduction: Oral cancer is the most common cancer in India. Two thirds (2/3) of oral squamous cell carcinoma and 75% of head and neck cancer can be attributed to tobacco use and alcohol consumption. Oral cancer is almost always preceded by some type of precancerous lesion. Oral cytology, which is largely based on the presence of nuclear or cytoplasmic alterations, can easily be performed to detect cancer at an early stage.

Objective: To assess the morphometrical variations in the buccal mucosal cells of tobacco chewers and non-chewers.

Methods: This study was conducted in 40 cases and 40 controls selected among attendants of the patients admitted in labour ward/postnatal ward of Mahila chikitsalaya, Jaipur, by preparing buccal mucosal smears after scraping buccal mucosa gently. Image J software was used to measure various morphometrical parameters.

Results: The morphometric parameters showed significant increase in nuclear diameter, decrease in cellular diameter and increase in nucleocytoplasmic ratio. Detailed results will be presented at the time of presentation.

Conclusions: Exfoliative cytology, which is a simple, non-invasive diagnostic technique, could increase the chances of earlier detection of premalignant and malignant lesions. Of various parameters, decrease in the cellular diameter and increase in the nuclear size are two significant morphologic changes that occur in actively proliferating cells.

101. Perception of surgical faculty on the utility of cadavers embalmed by MSR embalming technique

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Objective: M S Ramaiah (MSR) embalming technique is a specialised embalming procedure which enables the cadaver to retain its organoleptic properties. The conservative formalin cadavers are rigid, dark coloured and hard. This will not allow the surgeons of various specialities to train themselves or try out new procedures as in living. Hence, the objective of this study was to get a perception of the surgical faculty on their experience while trying out the various procedures on the MSR technique embalmed cadavers.

Methods: A 5-point likert scale questionnaire was used to get feedback by the surgical faculty after performing the procedure on cadavers embalmed by MSR Technique. The criteria used were skin colour, odour, consistency, differentiation of the layers, approach to the area, joint mobility and how far it mimics a living tissue.

Results: The responses (40) for the embalmed cadavers by the faculty were positive. The average rate for the various criteria was as follows. The colour of the skin (4.19/5), the consistency of the tissue (4.22), the pleasant odour of the embalmed cadaver (4.06), the differentiation of the layers (4.16), approach to the area (4.38), the mobility of the joints (4.16), suitable to the procedure done (4.71) and the extent to which the tissue mimicked the living (4.71).

Conclusion: The cadavers embalmed by MSR technique are soft and mobile, and tissue differentiation in layers is very good. They are excellent for cadaveric courses in all surgical faculty for all general surgical procedures, hip and knee arthroplasties, spine, skin flap courses, nasal endoscopies, etc.