

Method: To evaluate both of these procedures, we taught a class of 150 medical students about dermatoglyphics in general, about its importance and the process to analyze them. We demonstrated both the methods to obtain the prints. Thereafter the students were divided into 15 smaller groups of 10 each; they were provided with all necessary materials and asked to perform both procedures to obtain the prints and analyze them. Then they evaluated both the procedures by filling a simple questionnaire.

Results: It was found that in terms of ease of procedure of obtaining the prints, 97% found the lipstick method better, 70% evaluated the lipstick print method to be more clear and accurate than the Ink method, and 80% found the lipstick print method easier to analyze. All 100% accepted that lipstick method was more subject-friendly than Ink method. This present study is also supported by study of Gupta RK.

Conclusion: This lipstick method is easy, user-friendly and as efficient for analysis as the conventional method of ink method. This is cheap compared to hi-tech methods. We strongly recommend that this method should preferably be used for taking dermatoglyphic prints.

86. A study of physiological intracranial calcification on Ct scan in eastern Indian population

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Background: Knowledge of physiological calcification in brain parenchyma is essential to avoid misinterpretation during radiological evaluation. The calcifications are commonly seen in basal ganglia, pineal gland, falx cerebri, tentorium cerebelli and choroid plexus.

Objective: To determine the incidence of physiological intracranial calcification and its relationship to age and sex in eastern Indian population.

Method: A cross sectional descriptive study of CT scan brain was performed in the age group between 20-80 yrs in Eastern India. The study was conducted on 64 Slice MDCT PHILIPS Brilliance. Majority of our patients were of road traffic accidents, and routine CT scan study revealed these physiological calcification and did not possess any morphological abnormality.

Results: 100 patients, of which 59 male and 41 female, were studied, and overall 168 separate calcified areas were identified due to co-existent calcifications in most of the patients. The incidence of calcification was in pineal gland (62%), choroid plexus (54%), dura mater (26%), basal ganglia (8%), dentate nucleus (1%) and Pituitary gland (0%). Details will be discussed during presentation.

Conclusion: Physiological calcifications in some of the intracranial structures are not a very uncommon finding and it should not be confused with a pathological one.

87. Histological evaluation of lung of Swiss albino mice after prolonged therapeutic doses of NSAID-Ibuprofen

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Objective: To observe histological changes and selective morphometric parameters of the lung of Swiss albino mice after prolonged therapeutic doses of NSAID-Ibuprofen.

Method: In present study, young adult Swiss Albino mice were used. 25 mice in experimental group and 25 in control group were given therapeutic dose of NSAID-Ibuprofen and distilled water, respectively, by gastric gavage for 6 weeks. After 6 weeks, those mice were sacrificed and their lungs were processed for histological study. The results were compared between experimental and control groups.

Results: We observed no apparent histological change in the lung of the experimental group as compared to control group. Details of histological study and morphometric parameters will be presented later.

Conclusion: Prolonged therapeutic dose of NSAID-Ibuprofen by oral route does not have any adverse effect on micro architecture of lung.

88. Intrinsic muscles of larynx in action – A 3-D working model

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Abstract: The human larynx is a multi-functional organ – a conduit for breathing, airway protection and phonation. The true vocal folds stretched between the thyroid and arytenoid cartilages with the intrinsic muscles of larynx representing the functional focal point. The usual textbook description, static models and online videos are just not sufficient for a proper understanding.

Objective: To prepare a dynamic model of larynx for hands-on study of the intricate movements of the vocal folds.

Methods: A laryngeal cartilage-frame work is made in fiber glass. Elastic bands as vocal folds with muscles in Silicon rubber are specifically fixed.

Results: We have succeeded in making a fully functional 3-D model of Larynx that can be operated electronically/manually.

Conclusion: The dynamic range of movements of these folds – abduction, adduction-tightening and relaxing – made by the intrinsic muscles attached to the cartilages are well demonstrated. This would be of help not only for didactic study of the physiology of the vocal folds but also for understanding of clinical conditions such as the effects of paralysis of the laryngeal nerves. The detailed study of this group of muscles is extremely important for Anatomy/Physiology, ENT, Neurology-UG/PG as well Audiology & Speech Therapy

students. The process of making of the model will be described as well the mechanism of the vocal cord function will be demonstrated during the conference.

89. A radiological study of sphenoid sinus and its related structures

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Objective: Sphenoid sinus located in the body of sphenoid bone, closed with a thin plate of bone tissue that separates it from the surrounding neurovascular and glandular structures. It is divided by one or more vertical septa that are often asymmetric. The objective of this study was to access the separation of the sphenoid sinuses and its relation to optic nerve, vidian canal and foramen Rotundum as well as the extent of pneumatization of surrounding bones.

Methods: A retrospective CT analysis of sellar and parasellar region was done in 114 patients. The sphenoid sinus was studied for septation, presence of onodi cells, pneumatization of anterior clinoid process, position of optic nerve, vidian canal and foramen Rotundum in relation to the sinus.

Results: The sphenoid sinus showed main septa orienting to the left in 57, right in 25, midline in 31 and absent in 1 case respectively. Accessory septa were seen varying from 0 to 4 numbers. Fourteen cases showed onodi cells. Twenty-six cases presented anterior clinoid process pneumatization. Pneumatization of pterygoid fossa and greater wing of sphenoid were seen in 30 patients. Sphenoid septa ending in optic nerve was seen in 17 cases. Type - I optic nerve (nerve coursing adjacent to sinus) was seen predominantly in 147 cases studied. When compared to the foramen rotundum, vidian canal was frequently seen to be protruding into the sinus.

Conclusion: Knowing and visualization of these relationships and possibly present variations in this area are the key to successful surgical approach to these elements, as well as appropriate functional endoscopic procedures.

90. A computerized tomographic study of uncinete process of ethmoid bone

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Objective: The uncinete process is an important landmark in the anatomy of osteo-meatal complex of frontal recess, which also plays a vital role in the ventilation of middle meatus and sinuses. Its superior attachment shows great anatomic variability. The aim of this study was to observe and classify superior attachment and presence of pneumatization in uncinete process.

Methods: Computed tomographic images of paranasal region from 100 patients were studied after excluding those who had undergone endoscopic sinus surgery. The superior attachment of uncinete process was observed and tabulated according to Landsberg and Friedman classification. The results were analysed statistically.

Results: The superior attachment of uncinete process to the agger nasi cells (type - II) was found in 63 sides, while its attachment to lamina papyracea (type - I) and to middle turbinate (type - VI) was found in 34 and 35 sides respectively. Uncinete process ending at the ethmoid skull base (type - V), at the junction of middle turbinate with cribriform plate (type - IV), bifurcating towards lamina papyracea and junction of middle turbinate with cribriform plate (type - III) were seen in 14, 4 and 8 sides respectively. In 19 sides, the superior end showed no attachment to surrounding structures. The uncinete process was pneumatized (16%) unilaterally in 10 and bilaterally in 11 patients.

Conclusion: Preoperatively evaluating the variations of uncinete process and its pneumatization helps to avoid intra-operative damage to surrounding structures. The detailed knowledge of extent of uncinete process may also help to deduce the reason for refractory chronic sinusitis.

91. A radiological study of crista galli

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Objective: The midline bony projection of ethmoid bone-crista galli, has long been ignored though a variety of dimensions and shapes, pneumatization and its communications are observed in routine radiological imaging. Obstruction of communication of pneumatized crista galli with other paranasal chambers may lead to chronic inflammation and mucocoele development. Hence this study was aimed to study the various morphological variations of crista galli.

Methods: A retrospective observational study of 150 coronal CT images of paranasal sinus region was examined. Variations were classified based on the position of the crista galli in relation to the cribriform plate of ethmoid bone and to the degree of pneumatization. Any midline shift and connection to the adjacent sinuses were also documented.

Results: The morphology of the crista galli in the computed tomography images showed three definite positions. In 12.5% of the subjects, the crista galli did not extend beyond the level of the cribriform plate of ethmoid bone. It extended less than 50% of its height below the cribriform plate in 82.5% and more than 50% in only 5% of subjects. Pneumatization of crista galli was seen in 12.5% of subjects. The pneumatized crista galli was connected with the ethmoidal and frontal air sinuses in 20% and 60%, respectively.

Conclusion: The pneumatizations of crista galli and related pathological processes within it have not been correlated with the patients' complaints and the clinical symptoms so far. Hence this study suggests that otolaryngologists and