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

T.S. Gugapriya, N. Vinay Kumar, E. Kamala, S.D. Nalina Kumari

Chennai Medical College Hospital and Research Center, Trichy, Tamil Nadu, India

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 septation of the sphenoid sinuses and its relation to optic nerve, vidian canal and foramen Rotundum as well as the extent of pneumatisation 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, pneumatisation of anterior cliniod 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 pneumatisation. Pneumatisation of ptergyioid fossa and greater wing of sphenoid were seen in 30 patients. Sphenoid septa ending in optic nerve was seen in 17cases. 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 uncinate process of ethmoid bone

N. Vinay Kumar, T.S. Gugapriya, E. Kamala, S.D. Nalina Kumari

Chennai Medical College Hospital and Research Centre, Trichy, Tamil Nadu, India

Objective: The uncinate 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 pneumatisation in uncinate 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 uncinate process was observed and tabulated according to Landsberg and Friedman classification. The results were analysed statistically.
Results: The superior attachment of uncinate 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. Uncinate 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 uncinate process was pneumatised (16%) unilaterally in 10 and bilaterally in 11 patients.
Conclusion: Preoperatively evaluating the variations of uncinate process and its pneumatisation helps to avoid intraoperative damage to surrounding structures. The detailed knowledge of extent of uncinate process may also help to deduce the reason for refractory chronic sinusitis.

91. A radiological study of crista galli

E. Kamala, T.S. Gugapriya, N. Vinay Kumar, S.D. Nalina Kumari

Chennai Medical College Hospital & Research Centre, Trichy, Tamil Nadu, India

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 pneumatised crista galli with other paranasal chambers may lead to chronic inflammation and mucocele 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 pneumatisation. 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. Pneumatisation of crista galli was seen in 12.5% of subjects. The pneumatised crista galli was connected with the ethmoidal and frontal air sinuses in 20% and 60%, respectively.
Conclusion: The pneumatisations 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