

Preliminary study of pneumatization in anterior and posterior clinoid processes in Sri Lankan population

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Introduction

Clinoidectomy provide access to the structures in suprasellar and parasellar regions thus important during excision of tumours and clipping of aneurysms. The knowledge of pneumatization is important to prevent the potential risk of cerebrospinal fluid leaks during the surgery in the region. Although there are studies on the above subject, no published data available for a Sri Lankan population. The present study was conducted with aim to gather information about pneumatization of clinoid processes in Sri Lankan population

Objective

To assess the pneumatization of the anterior and posterior clinoid processes in Computed Tomography(CT) radiographs in a Sri Lankan population

Methodology

Fifty(50) computerized tomography scans which were donated for teaching and research purposes to Department of Anatomy of the University of Sri Jayawardenepura were analyzed for pneumatization of the clinoid processes. CT images were analyzed by two individuals independently and confirmed by a consultant Radiologist

Results

In the analyzed CT images male: female sex ratio was 34:16. Any form of pneumatization was observed in 38%(19/50) of the CT images.

Percentage17(17/100) showed pneumatization of the anterior Clinoid processes(ACP), out of which 10%(5/50) were bilateral.

Percentage13(13/100) showed pneumatization of the posterior Clinoid processes(PCP), out of which 6%(3/50) were bilateral.

In male CT images 38%(13/34) were Pneumatized. Isolated ACP and PCP pneumatization in males were observed equally on right side (3/5).

Presentage12.5(2/16) and 6.25%(1/16) of females had bi lateral ACP and PCP pneumatization respectively

Conclusion

An awareness on the incidences of pneumatization of the clinoid processes will reduce the complication rates following clinoidectomy surgeries. Further radiological studies are in need to develop population values for a Sri Lankans