

# **Preliminary study on pneumatization of 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 tumour excision and aneurysm clipping. Clinoid pneumatization knowledge could prevent the potential risks of CSF fistulae formation. Although there are international studies, no published data are available for Sri Lankan population.

## **Objective**

To assess the pneumatization of the anterior(ACP) and posterior(PCP) clinoid processes in Sri Lankan population.

## **Methodology**

Fifty(50) axial Computed Tomography images of the skull 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 ratio was 2:1

Age span was 1 month to 90years with a mean of  $53.2 \pm 2.32$ . Pneumatization was observed above 20 yrs but no increasing pneumatization observed with age.

Percentage 24(12/50) showed pneumatization of the ACP. Isolated left and right sided were observed on 6%(3/50) and 8%(4/50) respectively, where as 10%(5/50) were bilateral.

Percentage 20(10/50) showed pneumatization of PCP out of which 8%(4/50) had pneumatization on the left and 6%(3/50) on right side and 6%(3/50) were bilateral.

In male CT images 33%(11/34) of ACP and 26.4%(9/34) of PCP were pneumatized. where as in female CT images 37.5%(6/16) and 25%(4/16) of ACP and PCP were pneumatized respectively.

## **Conclusion**

Awareness on the incidences of pneumatization of the clinoid processes will reduce the complication rates following clinoidectomy surgeries. Further radiological studies are needed with coronal images to develop population values for Sri Lankans.

## **References**

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