

Prevalance of Infraorbital Ethmoid (Haller's) Air Cell on CT Image in Patients over 6 years of age

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Abstract:

Background and Aim: Infraorbital ethmoid air cells are extensions of anterior ethmoid sinus into the floor of the orbit and superior aspect of the maxillary sinus. Such anatomical variations may result sinusitis, mucocoele, retention cyst and headache. CT scan is commonly used for imaging infraorbital ethmoid cells. The aim of present study was: To determine the prevalence of infraorbital ethmoid cells on CT Image in patients over 6 years of age.

Materials and Methods: In this descriptive analytic study, 190 CT Cranial Images (91 women and 99 men) were examined for infraorbital ethmoid cells and their characteristics. Other data such as age, sex, involved side, history or symptom of sinusitis, and sinus disorder were recorded using a questionnaire. Data analysis were done in SPSS statistical software by chi-square test.

Results: Prevalence of infraorbital ethmoid (Haller's) cells on CT Image in patients older than 6 years were 11.6% (12.1% for men and 11% for women). There was no statistically significant difference between men and women. The most frequency related to patient who were between 41-50 years old (24.1%) and the least frequent age was in patient under 20 years (0%). Unilateral involvements (9.5%) were more than bilateral form (2.1%) and there was statistically significant difference between right and left sides. Two patients (9.1%) with Haller cells were multilocular, and 20 patients (90.9%) with Haller cells were unilocular. There was a statistically significant difference in Haller's cell frequency between different shapes. Ten patients (45.5%) with Haller cells had history or symptoms of sinusitis and 3 patients (13.6%) with Haller cells had retention cyst in CT Image. Sixteen Patients (72.7%) with Haller cells had narrowing of Infandibulom on CT Images.

Conclusion: According to the result of this study and the prevalence of infraorbital ethmoid cells on CT Image, identification of these cells can help the dental professional, to diagnoses orofacial pain with origin of sinus.

Keywords: Anatomical variation, Haller cell, Sinusitis, Mucous retention cyst.

Manuscript submitted: March 2010, Revised and acceptance: Aug 2010

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