Computed tomography analysis of sinonasal anatomical variations and relationship with the maxillary sinus retention cyst

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Abstract

Objectives: The purpose of the present study was to investigate the relationship of sinonasal anatomic variations (SAVs) with maxillary sinus retention cysts (RCs) on computed tomography (CT).

Methods: Our study included 202 patients who applied to the ENT outpatient clinic with fascial pain, nasal obstruction and postnasal drip complaints between 01.09.2014 and 09.02.2016. The patients who had maxillary RCs in their CT scan comprised the study group, while the patients who did not have RCs in their CT scan comprised the control group. The CT scans of these two groups were examined and recorded for the SAVs. The statistical analysis of the SAVs for these two groups was conducted using the Mann–Whitney U test.

Results: The maxillary sinus + group significantly correlated with sex, nasal septal deviation (NSD), and pneumatized uncinate (p<0.05). The number of patients with right maxillary sinus RCs + significantly correlated with sex (p<0.05), while number of patients with left maxillary sinus + correlated with pneumatized uncinate (p<0.05).

Conclusion: In our study we saw that some of the anatomic variations may promote maxillary sinus cysts. This results need to be confirmed by more detailed studies.

Key words: Sinonasal anatomic variations, computed tomography, maxillary sinus retention cysts

References