

sinus disease. Prevalence of frontal sinus cells and drainage pathways using the IFAC system were recorded. Comparisons were made between patient race, sex, and CRS groups using 2-sided Fisher exact test or Pearson χ^2 when comparing 2 or 3 groups, respectively. Odds ratio (OR) and 95% confidence intervals (CIs) were calculated.

Results: A total of 206 scans (103 patients) were included, 59 (57.3%) of which had CRS. The cohort consisted of 92 (55.3%) men with a mean age of 43.3 ± 17.2 years and a racial distribution of 80 White (38.8%), 84 Black (40.8), and 42 Asian (20.4%) patients. There were no statistically significant differences ($P > .10$) in any frontal cell distributions and drainage pathways between patient races. There were similarly no significant differences ($P > .10$) in frontal cells or drainage pathways between sexes. Patients with CRS, however, were more likely to have a supraorbital ethmoid cell and drainage pathway medial to it ($P = .027$; OR = 2.80; 95% CI, 1.14–6.87). They also had frontal sinus drainage lateral to the supra bulla cell more often ($P = .035$, OR = 1.85; 95% CI, 1.05–3.23).

Conclusion: No significant differences in frontal sinus cells and drainage pathways exist between patient sex and race. However, differences in frontal sinus and anatomy and drainage in CRS patients should be noted prior to frontal sinus surgery to improve surgical awareness and outcomes.

Granulomatosis With Polyangiitis Masking Nasal Cavity Squamous Cell Carcinoma

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Introduction: Our objective is to describe a rare case of nasal cavity squamous cell carcinoma, which was masked in a patient with granulomatosis with polyangiitis (GPA).

Method: A case presentation and review of the literature were conducted.

Results: The patient is a 55-year-old woman diagnosed with systemic vasculitis at age 14 years. After development of pulmonary and renal manifestations, including renal failure requiring multiple renal transplants, biopsy confirmed GPA. Surgical history was notable for resection of a left septal inverted papilloma 15 years ago. Recurrent episodes of sinusitis were attributed to GPA flares by multiple otolaryngologists prior to presentation to our service with severe right-sided forehead and orbital pain. Exam was notable for saddle nose deformity and anterior septal perforation. Nasal endoscopy revealed a large friable, granular mass originating from the posterior nasal septum with extension to skull base superiorly and right nasopharynx and sphenoid floor posteriorly; there was additional anterior involvement of the septal perforation with superficial spread along the lateral nasal wall and ventral surface of the nasal bones. Pathology was consistent with squamous cell carcinoma, arising in a background of inverted papilloma. Imaging demonstrated a soft-tissue density within the right olfactory cleft with continued progression seen on serial imaging dating to 3 years prior to presentation. Tumor board recommendations advocated for induction chemotherapy, followed by definitive radiation and possible surgical salvage. Functional imaging confirmed that the patient remains disease free 6 months after radiation.

Conclusion: GPA is a systemic vasculitis characterized by renal, pulmonary, and sinonasal inflammation, with sinusitis being a common complaint. Treatment is primarily with immunosuppression. Otolaryngologists must maintain a high index of suspicion for malignancy in a patient with GPA and prior history of inverted papilloma.

Immediate Effect of Nasal Irrigations on Nasal Saccharin Test

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Introduction: Nasal irrigation is an intervention that has been described as early as 1902. Although indications for its use are not precise, nasal irrigations are prescribed by up to 87% of family physicians for conditions such as rhinosinusitis, allergic rhinitis, and viral upper respiratory infections. A systematic review evaluating nasal irrigation's efficacy for acute upper respiratory infections found limited evidence of its use. A similar systematic review focused on allergic rhinitis reported there may be an improvement in patient-reported disease severity. However, despite its long history and widespread use, there is little information regarding its mechanism of action.

Method: Fourteen healthy volunteers aged 22 to 32 years were enrolled. None of them were smokers. Basal nasal transit time was measured performing the saccharin test. Posteriorly, the subjects performed nasal saline irrigation, and the saccharin test was repeated. Saline irrigation was performed using Sinus Rinse (NeilMed Pharmaceuticals, Inc), a commercially available high-volume, low-pressure system, under supervision by a physician. Isotonic saline solution was used to perform the irrigation. A paired t test was used to calculate if the difference between basal and postirrigation mucociliary transit time was significant.

Results: The average result for the saccharin test before performing the nasal irrigation was 7 minutes 43 seconds. The average result for the saccharin test immediately after performing the nasal irrigation was 5 minutes 52 seconds. The correlation coefficient was 0.737. The P value was .0036 (with a confidence interval of 95%), meaning the difference in the test results was significant.

Conclusion: It can be concluded that there is a decrease in the nasal saccharin test time immediately after performing a nasal irrigation. Thus, it could be interpreted that nasal irrigation with isotonic saline speeds up nasal transit time and improves mucociliary clearance. This could be a factor explaining nasal irrigation's popularity and positive effects in nasal symptomatology.

Incidence of COVID-19 Olfactory Dysfunction in Tehran, Iran

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Introduction: We aim to acknowledge the importance of the rhinologic symptoms in patient suspected to COVID-19; to be familiar with the incidence of anosmia during the recent pandemic; and to select the proper approach in patients with