

and shares a common pathophysiological cascade. Mepolizumab is an interleukin (IL)-5 antagonist monoclonal antibody, which inhibits TH2 inflammatory response. Best suited candidates for this type of treatment are focus of research. The aim of this study is to evaluate clinical response of CRSwNP with/without mild asthma after 12 month administration of anti-IL-5 therapy.

Methods: In total, 55 patients fulfilled the EPOS2023 criteria for anti-IL-5 therapy, and have been screened prospectively between May of 2022 and December of 2023. Of them, 43 had CRSwNP with asthma and 12 CRSwNP without asthma. A total of 46 patients are under treatment today and 9 have stopped mepolizumab. All patients are clinically evaluated before, in 6, and 12 months of anti-IL-5 treatment, with nasal endoscopy, nasal polyp score (NPS), visual analog scale (VAS) score, SinoNasal Outcomes Test-22 (SNOT-22), and Sniffin' Sticks 12.

Results: In total, 15 patients have completed 12 months, and 24 did 6 months of mepolizumab. Endoscopic surgery was underwent by 33 before the initiation and 8 during treatment. At screening, 77% had NPS 4 to 8 and 38% had 0. Sniffin' Sticks were 1 to 5 for 22% and 6 to 12 for 40% of patients. VAS score before treatment was 7 to 10 in more than 40% and SNOT-22 was over 40 in more than 80% of cases. During the follow-up visits at 6 and 12 months, more than 50% of patients showed increase of 2 to 4 points on Sniffin' Sticks and most of them had improvement of SNOT-22 score of at least 5 points, without a remarkable difference in NPS.

Conclusions: The 12-month anti-IL-5 treatment for CRSwNP, seems to improve quality of life and olfaction scores, but not significantly the endoscopic findings. Further research is needed to determine clinical factors that may predict response to anti-IL-5 therapy.

Changing Epidemiology of Sinonasal Cancer in the United States

Christian Kabongo, BS, Christian Soneru, MD, Trevor Bowman, BS

Introduction: Prior studies on sinonasal malignancies use limited data which is now dated. Our aim is to evaluate the current rates, subsite distribution and trends in sinonasal malignancies in the United States.

Methods: The US Cancer Statistics Public Use Research Database was used, which captures de-identified data from the National Cancer Institute's SEER (Surveillance, Epidemiology, and End Results) and the Centers for Disease Control and Prevention's National Program of Cancer Registries. Together, these databases include 97% of newly diagnosed cancers. We extracted data on malignancies from all sinonasal subsites from 2001-2019. SEER*Stat and Joinpoint Regression 5.0.2 were used to calculate annual incidence rates as well as average annual percentage change (APC).

Results: Across different sinonasal histologies, squamous cell carcinoma (SCC) was predominant (68.63%) followed by adenocarcinoma (16.23%). The primary subsites were nasal cavity (51.07%) followed by maxillary sinus (32.08%). Over 20 years, the incidence of nasal cavity cancer increased (APC 0.79, $P < .05$), while that of maxillary sinus cancer (APC -0.58, $P < .05$) decreased. The incidence of SCC (APC -0.58, $P < .05$) and adenoid cystic carcinoma (APC -1.01, $P < .05$) decreased, contrasting with increased sinonasal undifferentiated carcinoma (APC 2.67, $P < .05$). The incidence of sinonasal cancer in men decreased (APC -1.1%, $P < .05$), while it increased in women (APC 0.496, $P < .05$). By race and gender, black men showed the highest rates with a significant decrease (APC -1.73%, $P < .000001$). Among women, White women had the highest rates and the second-highest APC of 0.484% ($P < .000026$).

Conclusions: We found significant changes in the epidemiology of sinonasal cancers over the past 20 years, with fewer cancers originating in the maxillary sinus. Interestingly, the overall incidence of sinonasal malignancy has significantly decreased in men while the rates have increased in women. The evolving landscape underscores the need for ongoing surveillance and targeted interventions in at-risk populations.

Chronic Rhinosinusitis and Systemic Autoimmune Diseases Among Patients With World Trade Center Occupational Exposure

Alicia B. Yang, Horacio M. Romero Castillo, MA, Kalena Liu, Mathilda Alsen, MPH, Maaikie van Gerwen, MD, PhD

Introduction: Chronic rhinosinusitis (CRS) has been associated with systemic autoimmune diseases (SAIDs), but limited data exists investigating their association within high-risk populations. We therefore assessed whether SAID is an independent predictor of CRS in a population with World Trade Center (WTC) occupational exposure.

Methods: A retrospective cohort study was conducted using data linked to the medical records of patients seen within the Department of Otolaryngology—Head and Neck Surgery of a large NYC Health System who listed the WTC Health Program as the payer for the received medical service from 2010 to May 2022. Data were collected using Research Electronic Data Capture Software (REDCap, Vanderbilt University) for patients who had documented medical history. SAIDs were determined as those that were included in the list of autoimmune diseases by the Global Autoimmune Institute or Autoimmune Association. Descriptive statistics were used to characterize CRS among patients with and without SAID. Logistic regression models were used to determine the association between SAID and CRS while adjusting for sex, age, and history of asthma (R version 4.3.1).

Results: Of 3101 WTC-exposed patients, there were 218 patients with at least one SAID: 45 (20.6%) had psoriasis, 37 (17.0%) had sarcoidosis, and 36 (16.5%) had an autoimmune arthritis. There was no significant difference in the prevalence of CRS among patients with an SAID (10.6%) and those without an SAID (10.3%) ($P = 1$). There was no increased odds of CRS in patients with SAID versus without SAID in unadjusted (odds ratio [OR]: 1.023; 95% confidence interval [95% CI]: 0.637-1.269) and adjusted analyses (OR: 0.978; 95% CI: 0.606-1.509).

Conclusions: This research did not confirm an increased risk of CRS in patients with a history of SAID even in this highly exposed population with increased independent risk of CRS and SAID. More research is needed with larger sample sizes to further investigate the potential link between SAID and CRS, including mechanistic pathways.

Differential Outcomes of Endoscopic Septoplasty Based on Indication: Nasal Airway Versus Skull Base Surgery

Axel E. Renteria, MD, MS, Maxime Fieux, MD, PhD, Lirit Levi, MD, Bruna Castro, MD, Michael T. Chang, MD, Peter H. Hwang, MD, Zara M. Patel, MD, Jayakar V. Nayak, MD, PhD

Introduction: However, outcomes for endoscopic septoplasty when indicated for nasal obstruction vs access for skull base surgery have not been previously determined.

Methods: A cohort of over 1500 patients was retrospectively analyzed from 1 tertiary rhinology/neurorhinology center. Patient demographics, procedural indications and postoperative complications were compiled. SPSS was used for statistical analysis.

Results: Preliminary results demonstrate that overall, postoperative complications for endoscopic septoplasties is 9.6%, within the expected range in the literature. The most common complications include septal hematoma (1.9%), nasal infection (3.8%), and profound mucosal edema (3.8%). However, when comparing postoperative complications based on indication, there is a significant decrease in postoperative nasal infection between septoplasties performed for nasal obstruction (0%) versus septoplasties performed for access as part of transnasal endoscopic skull base surgery (33.3%) ($P < .001$).

Conclusions: This is the first case series to longitudinally analyze the outcomes of endoscopic septoplasties based on their indication—nasal obstruction vs surgical access. This discrepancy may better guide proper preoperative counseling of patients and set proper expectations regarding postoperative outcomes.

Dupilumab in the Treatment of Severe-Uncontrolled Nasal Polyposis: A 2-Year Monocentric Experience in 80 Patients

Valeria Dell'Era, MD, Irene Saino, MD, Ottavia Barozza, MD, Paolo Aluffi Valletti, MD, Massimiliano Garzaro, MD

Introduction: Chronic rhinosinusitis with nasal polyps (CRSwNP) is associated with significant morbidity and reduced health-related quality of life. Findings from clinical trials and phase-4 studies have demonstrated the effectiveness of dupilumab in CRSwNP.

Methods: This real-life, observational, monocentric study assessed the effectiveness and safety of dupilumab in patients with severe uncontrolled CRSwNP ($n = 80$) during a 30-month observation period, from May 2021 to December 2023. We collected data at baseline and after 1, 3, 6, 9, and 12 months of follow-up. After the first year, follow-up continues every semester. We focused on nasal polyps score (NPS), nasal symptoms, olfactory function (visual analog scale score), and quality of life (SinoNasal Outcomes Test-22 [SNOT-22]). We considered comorbidities, previous surgery, and adherence to intranasal corticosteroids, and examined the success rates based on current guidelines.

Results: In total, 62 patients (77% of the population) exceed one year of therapy, while 31 patients (39%) reached the 2-year follow-up. Of the sample, 97% (78) still continues the treatment. We observed a significant decrease in NPS from a median value of 4.9 (SD 1.9) at baseline to 0.9 (SD 1.1) at 12 months ($P < .001$), confirmed at 24 months in the 31-patient sample. A significant decrease in SNOT-22 scores was registered, from a median of 50.5 (SD 19.4) at baseline to 11.5 (SD = 11.6; $P < .001$) at 12 months; all data were confirmed at 24 months. Moreover, olfactory function and nasal symptoms VAS scores showed a significative improvement ($P < .005$) at 1 and 2 years control, compared to baseline. An excellent-moderate response was observed in 92% patients, based on EPOS and EUFOREA criteria. Adverse effects were reported: no major were recorded, with quick resolution and without stopping the therapy.

Conclusions: Our findings support the effectiveness and safety of dupilumab as an add-on therapy in patients with severe uncontrolled CRSwNP in reducing polyp size and improving the quality of life, the severity of nasal symptoms, and olfaction.

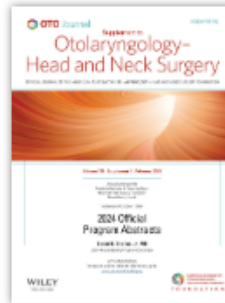
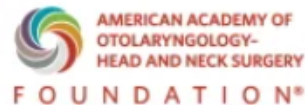
Effect of Nasal Polyp-Derived Innate Lymphoid Cells on Chronic Rhinosinusitis

Aiko O. Oka, MD, Kengo Kanai, MD, Mitsuhiro Okano, MD

Introduction: Innate lymphoid cells (ILCs) are involved in the pathogenesis of chronic rhinosinusitis with nasal polyps (CRSwNP), and Staphylococcus enterotoxin B (SEB) from *Staphylococcus aureus* is one of the most characterized microbial components that promote chronic inflammation, such as the local eosinophilia in CRSwNP. In the present study, we sought to characterize the involvement of ILCs in SEB-induced cellular responses in CRSwNP.

Methods: Dispersed nasal polyp (NP) cells (DNPCs) and NP-derived ILCs were prepared from NPs. DNPCs and/or NP-derived ILCs were stimulated with SEB, then the levels of type 1 (interferon- γ , type 2 [interleukin, IL-5 and IL-13],

Otolaryngology–Head and Neck Surgery



Volume 172, Issue S1

February 2025

Pages P201-P416

Poster Presentations |  **Free Access**

Poster Presentations

 **Correction(s) for this article** 

First published: 31 January 2025 | <https://doi.org/10.1002/ohn.982> |

 **VIEW METRICS**

CDC Find Full Text 

Advertisement