Mepolizumab Reduces Systemic Corticosteroid Use in Patients With Chronic Rhinosinusitis With Nasal Polyps

**Aims**

GSEAIF is a subtype of CRS, characterized by chronic eosinophilic inflammation of the nose, paranasal sinuses, and upper airways.1,2 GSEAIF also lacks type 2 inflammation, including Eregs and T-cell subsets in the sinus mucosa.3 4 Mepolizumab is a humanized monoclonal antibody that binds to and inactivates the IL-5 receptor.5 The GSEAIF Phase IIb clinical study examined the efficacy and safety of mepolizumab 100 mg SC in adult patients with GSEAIF in need of repeat surgery.

In the SYMPHONY study, the primary and secondary endpoints showed that mepolizumab treatment reduced nasofibroscopy-guided nasal polypectomy, improved nasal obstruction, and reduced the number of patients with surgery-associated polyp regrowth.6 7

The efficacy of mepolizumab in reducing SCS use in patients with GSEAIF was assessed as an exploratory endpoint in the study.

**Methods**

**Randomized**

- Double-blind
- Placebo-controlled
- Induction and Maintenance

**Baseline demographics and characteristics**

Baseline demographics and characteristics are presented in Table 1. The study population consisted of 206 patients with CRSwNP, 67% of whom had a history of asthma. The mean age was 48.6 years, and the median time since last SCS use was 19 days.

**Results**

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**Patients on mepolizumab spent a similar number of days on SCS for NP versus placebo**

The number of days on SCS for patients who received ≥1 course of SCS for NP; median value was 20 (100) for mepolizumab and 15 (100) for placebo. The difference in median days on SCS was not statistically significant (p=0.09).

**Conclusions**

- The primary analysis of this study confirmed the efficacy of mepolizumab in the reduction of SCS use in patients with GSEAIF.
- Despite a similar number of days on SCS for NP with mepolizumab and placebo, the total SCS dose was lower in patients treated with mepolizumab.
- These data support the use of mepolizumab to reduce SCS use in patients with GSEAIF.