

Correspondence

Omalizumab or dupilumab for chronic rhinosinusitis with nasal polyposis

To the Editor:

We read with interest the encouraging results from the POLYP 1 and 2 phase 3 trials with omalizumab over 24 weeks in 265 patients with allergic chronic rhinosinusitis with nasal polyposis (CRSwNP), showing significant superiority versus placebo on all primary and secondary end points.¹ This begs the pertinent question as to how these improvements compare to other type 2 biologic agents that have a licensed indication for CRSwNP.

For the primary outcome of endoscopic nasal polyp score in POLYP 1, the mean change from baseline was -1.14 from a pooled baseline of 6.25 , equating to an 18% change, whereas in POLYP 2, values were -0.59 from 6.25 and 9% , respectively. For the primary outcome at 24 weeks with dupilumab in the SINUS 24 trial, corresponding values were -2.06 from 5.94 and 35% , and in the SINUS 52 trial values were -1.80 from 6.09 and 30% .²

Although we appreciate such indirect type of comparisons are crude, they make the salient point that changes in nasal polyp score are greater in absolute or percentage terms for dupilumab than for omalizumab. This may reflect the mechanism of action in that dupilumab acts higher up the type 2 inflammatory cascade than omalizumab by blocking signaling of IL-4 and IL-13, and accordingly has been shown to suppress levels of fractional exhaled nitric oxide and IgE in patients with asthma.^{3,4} In a *post hoc* analysis of phase 3 trials in severe asthma, it was shown that dupilumab was equally effective in reducing exacerbations or improving lung function in respect of underlying allergic status.⁵ We would therefore suggest that for patients with severe allergic asthma and comorbidity with CRSwNP, dupilumab may be a

more suitable first-line option than omalizumab. Further head-to-head randomized controlled trials will be required to definitively answer this important question.

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