Mepolizumab Reduces Exacerbations and Improves Health-Related Quality of Life in Patients With Severe Asthma and Nasal Polyps, Sinusitis, or Allergic Rhinitis

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Aims

Allergic rhinitis (AR), sinusitis, and nasal polyps (NP) often coexist upper airway complications in patients with asthma and further exacerbate with poor self-care and/or treatment delay 

Mepolizumab reduces the annual rate of clinically significant exacerbations that require systemic corticosteroids, and long-term, in addition to reducing the duration of exacerbations in patients with severe eosinophilic asthma2.

Methods

Randomized, double-blind, placebo-controlled, multicenter IV and SC trials (NCT01691521; NCT02281318).

Subgroups

NP, AR, and/or sinusitis

Mepolizumab via IV or SC versus placebo in patients with severe eosinophilic asthma that demonstrates that mepolizumab is effective in patients with comorbid upper airway diseases5


SoC

Acute exacerbations

ACQ

ACQ 6.00 (2.50)

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Improvements in the ACQ over baseline at Week 24 were largest in patients with comorbid NP, sinusitis, and/or AR

Mepolizumab versus placebo reduced the annual rate of clinically significant exacerbations by approximately 67% in all patients, with larger reductions observed in those with comorbid NP, sinusitis, and/or AR

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NCT01691521

NCT02281318

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Conclusions

This hypothesis-generating analysis, patients with severe eosinophilic asthma and sinusitis, or AR, and/or nasal polyps, had baseline exacerbation rates that were similar to those observed in clinical trials, were more frequent in patients with severe AR than in those without AR

The increased benefit we observed in patients with NP is in order to prevent findings among patients with asthma and NP recognizing biological therapy and with similar asthma, and comorbidities (e.g., rhinitis, sinonasal inflammation).

Patients with comorbid NP reported the highest baseline blood eosinophil counts (median 154 cells/µL) among all eosinophil counts from previously published with an increased response to mepolizumab treatment –

These results suggest the patients with severe eosinophilic asthma with or with or without comorbid NP, sinusitis, or AR benefit from mepolizumab treatment, although patients with all may benefit from an even disease regimen.

Risk of bias summary: overall, low risk.

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