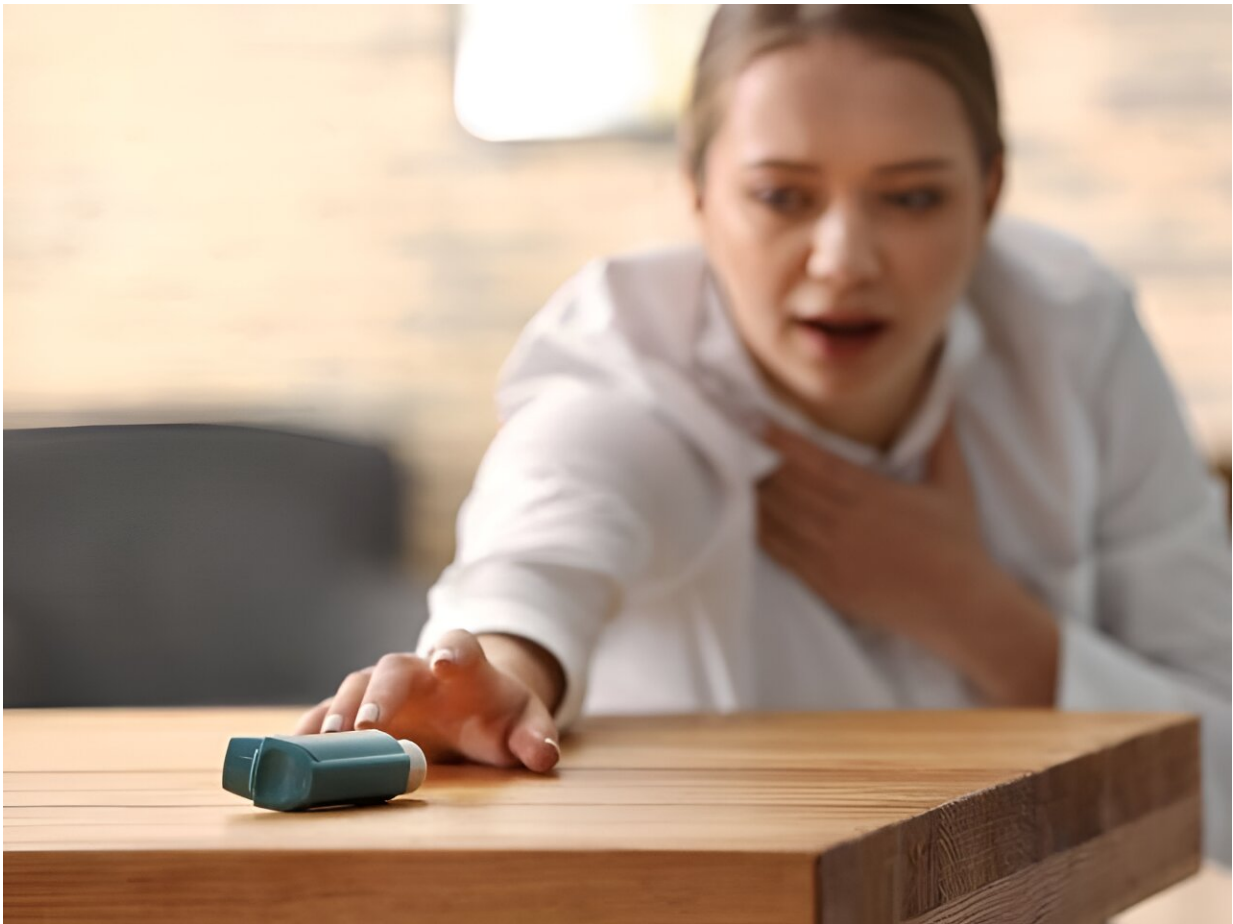


Tezepelumab reduces mucus plugs in adults with uncontrolled asthma

September 29 2023, by Lori Solomon



Tezepelumab is associated with a reduction in occlusive mucus plugs

versus placebo in adults with uncontrolled asthma, according to a study published in the October issue of *NEJM Evidence*.

Lars H. Nordenmark, Ph.D., from AstraZeneca in Oslo, Norway, and colleagues assessed the anti-inflammatory effect of tezepelumab in participants of the CASCADE trial, in which patients (aged 18 to 75 years old) with moderate-to-severe, [uncontrolled asthma](#) were randomly assigned (1:1) to 210 mg tezepelumab (37 patients) or placebo (45 patients) every four weeks subcutaneously for at least 28 weeks.

The researchers found that the absolute change from baseline in mean mucus plug score was -1.7 in patients receiving tezepelumab and 0.0 in patients receiving placebo. There was a positive correlation observed at baseline between mucus plug scores and levels of inflammatory biomarkers (blood eosinophils, eosinophil-derived neurotoxin, fractional exhaled [nitric oxide](#), interleukin-5, and interleukin-13), as well as a negative association with lung function measures (prebronchodilator forced expiratory volume in 1 second and forced mid-expiratory flow).

Reductions in mucus plug scores for patients receiving tezepelumab were correlated with improvements in lung function and reductions in blood eosinophil count and levels of eosinophil-derived neurotoxin, a biomarker of eosinophilic degranulation.

"The reduction in occlusive mucus plugs in these [patients](#) is consistent with the idea that reducing mucus plugs is a component of the salutary therapeutic effect of tezepelumab," the authors write.

Several authors disclosed financial ties to [pharmaceutical companies](#), including AstraZeneca and Amgen, which manufacture tezepelumab and funded the study.

More information: Lars H. Nordenmark et al, Tezepelumab and

Mucus Plugs in Patients with Moderate-to-Severe Asthma, *NEJM Evidence* (2023). [DOI: 10.1056/EVIDoa2300135](https://doi.org/10.1056/EVIDoa2300135)

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