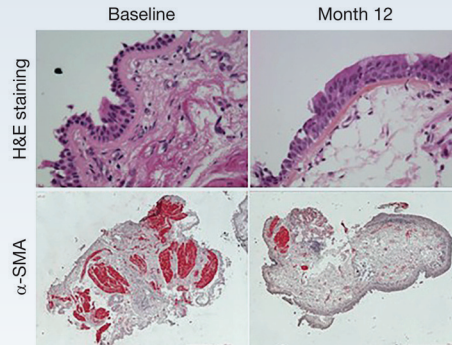
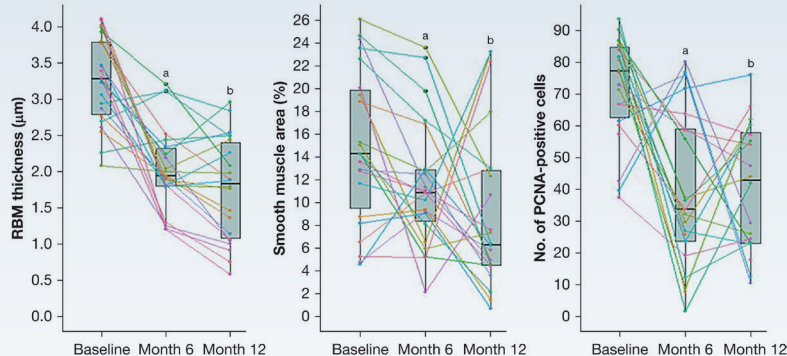


# Can Mepolizumab, an Anti-IL-5 Antibody, Modify Airway Remodeling in Adult Patients With Severe Eosinophilic Asthma?

## STUDY DESIGN

- Prospective observational study of 37 patients with severe eosinophilic asthma
- Mepolizumab 100 mg was administered subcutaneously every 4 weeks for 12 months
- Bronchial biopsies and bronchoalveolar lavage (BAL) were performed at baseline, 6 months, and 12 months

## RESULTS



- Patients on mepolizumab had a reduction in reticular basement membrane (RBM) thickness ( $P < .0001$ ), airway smooth muscle (ASM) mass ( $P = .0066$ ), and proliferating cell nuclear antigen (PCNA)-positive ASM cells ( $P < .0001$ ) in the bronchial mucosa at both 6 and 12 months
- BAL fluid showed reduced levels of tenascin-C at 6 and 12 months, reduced levels of fibulin-1 at 12 months, and near complete depletion of eosinophils at 12 months

The findings of this study show that in addition to its antiinflammatory effects, mepolizumab also may attenuate structural airway changes in severe eosinophilic asthma, which could contribute to its clinical benefits.