

Abstract

Background and Objective: Several monoclonal antibodies have been approved for difficult-to-control asthma. The long-term effect on preventing the progression of bronchiectasis and steroid-sparing effect in patients with allergic bronchopulmonary mycosis associated with difficult-to-control asthma is unknown.

Methods: This study is a retrospective cohort study based on 2012 – 2022 data obtained from a tertiary academic hospital. The effect of monoclonal antibodies was assessed by prednisolone (PSL) doses and the number of segments with bronchiectasis 28 days after the initiation of the treatment compared with antifungal agents.

Results: In total, 28 patients were included in the analysis. Monoclonal antibodies were used for five asthmatic and steroid-dependent patients with allergic bronchopulmonary mycosis (ABPM). The effect of monoclonal antibodies on PSL dose (-3.27 mg (95% confidence interval (CI) -7.34 to 0.80)) and prevention of the progression of bronchiectasis (regression coefficient -0.38 (95%CI -1.27 to 0.51)) was not statistically significant.

Conclusion: In patients with glucocorticoid-dependent ABPM, monoclonal antibodies tend to reduce PSL dose and prevent the progression of bronchiectasis but not achieve statistical significance.

Keywords: Allergic Bronchopulmonary Aspergillosis, Asthma, Monoclonal antibody, Antifungal agent, Bronchiectasis, Steroid sparing effect