

# BIOLOGICAL THERAPY CESSATION AFTER FIVE YEARS LOSS OF ASTHMA CONTROL

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## **Objective:**

Severe asthma is defined as the diseases that remains uncontrolled despite optimized treatment with high- dose inhaled corticosteroids (ICSs), long-acting beta-agonists, or requires a high-dose ICS-long - acting beta-agonists combination. In some cases, patients may benefit from biologic agents, such as anti-immunoglobulin E (anti-IgE) therapy, anti-interleukin-5 (anti-IL-5), anti-IL-5R, anti-IL4/13R or anti-thymic stromal lymphopoietin (TSLP), depending on their age, serum IgE level, and asthma phenotype.



There are many unresolved issues among biological treatment, among others also the duration of treatment with this drugs in severe asthmatics.

## Methods:

We present two case reports which discuss the clinical effects of discontinuing of biologicals with different mechanisms, anti IgE and anti-IL-5, in two female with severe asthma after 5 years of treatment.

## **Result:**

The first patient was a 69-year-old female who had uncontrolled asthma before omalizumab treatment but had well-controlled asthma during treatment. Omalizumab was discontinued after 5 years since she had no exacerbation history, did not require regular use of systematic steroids and ACT 21. After stopping the therapy, the patient experienced asthma exacerbation, and clinical deterioration with ACT 14. Lung function test revealed a decrease in FEV1 values (35% vs. previously 50%), and increase in blood eosinophilia (410 cells/nL).

The second patient was a 58-year-old female was treated with mepolizumab for five years. After discontinuing the therapy, the patient experienced worsening asthma symptoms. Her ACT was 10, exercise intolerance appeared with mMRC 2. Lung function test showed a decrease in FEV1 values (54% vs. previously 83%), and high peripheral eosinophilia (2200 cells/nL)

### **Conclusion:**



Patients with severe asthma typically experience persistent symptoms despite medical therapy, report decreased quality of life, and suffer an accelerated loss of lung function. Patients who are candidates for biologic therapy reduce symptoms of asthma, improve lung function, reduce the use of oral corticosteroids, and improve quality of life of patients.