

Can omalizumab solve the problem of inadequate controlled severe persistent asthma patient

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Aim of the study: We determined the effect of omalizumab on clinically significant asthma exacerbations (requiring systemic corticosteroids).

Background: Over 300 million individuals worldwide have asthma¹ of whom the majority have mild or moderate disease that can be controlled by inhaled corticosteroids, either alone or in combination with inhaled longacting β 2 agonist bronchodilators.¹⁻³ Nevertheless a considerable proportion of patients with asthma, 4 particularly those with severe disease⁵ have poorly controlled symptoms and are at increased risk of exacerbations. In some patients inadequately controlled asthma is due to poor adherence with treatment, untreated co-morbidities, dysfunctional breathing or psychological problems.^{5,6} For others, there is a need for additional or new therapies.⁷ Severe asthma occurs in 5% to 10% of the asthmatic population and in this group it is estimated that over 50% have allergic IgE-mediated asthma.⁹ Omalizumab, a recombinant humanized monoclonal antibody that binds circulating IgE antibody, is a treatment option for moderate to severe allergic asthma in patients whose asthma is not well controlled with inhaled corticosteroids and inhaled long-acting β 2 agonist bronchodilators.¹⁻³

Methods: Following a run-in phase, patients (12-75 years) inadequately controlled with high-dose inhaled corticosteroids (ICS) and long-acting beta(2)-agonists (LABA) with reduced lung function and a recent history of clinically significant exacerbations were randomized to receive omalizumab or placebo for 24 weeks in a double-blind, parallel-group study.

Results: A total of 51 patients were included in the efficacy analyses. (30 treated with omalizumab), 95% of whom had severe persistent asthma according to the Global Initiative for Asthma (GINA) 2011 update. Omalizumab significantly reduced the rate of asthma exacerbations by 40% ($P < 0.0001$ vs control) and the rate of total emergency visits by 44% ($P < 0.0001$ vs control). Omalizumab significantly improved asthma-related quality of life, morning peak expiratory flow and asthma symptom scores.

Conclusion: In patients with inadequately controlled severe persistent asthma, despite high-dose ICS and LABA therapy, omalizumab significantly reduced the rate of clinically significant asthma exacerbations, severe exacerbations and emergency visits.

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