URTICARIA, ANGIOEDEMA

OMALIZUMAB IN THE TREATMENT OF MAST CELL DISORDERS: A SYSTEMATIC LITERATURE REVIEW

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Introduction: Mast cell disorders (MCD) include cutaneous mastocytosis (CM), systemic mastocytosis (SM) and mast cell activation syndrome (MCAS). MCD are associated with Mast-cell activation symptoms (McAS) for which limited therapies are available. Omalizumab, an anti-IgE monoclonal antibody, may interfere with mast-cell activation and control MCD.

Objectives: We aimed to assess the efficacy and safety of omalizumab in the treatment of MCD.

Methods: We systematically searched MEDLINE, EMBASE and Cochrane to October 2018 according to Cochrane recommendations. All patients diagnosed with CM, SM or MCAS according to international consensus criteria were included.

Results: Fifty-two patients (30 males, 22 females) were treated with omalizumab. The mean age was 41 years. Treatment regimen mainly consisted on monthly 300 mg injections of omalizumab (31/52). The mean duration of the treatment was 28 months. Omalizumab was initiated for idiopathic anaphylaxis, venom immunotherapy (VIT) intolerance and various McAS. Complete resolution of idiopathic anaphylaxis was noted in 16/18 patients treated. Omalizumab prevented reaction of VIT in 3/3 patients and led to a tolerance of the VIT in 8/8 patients. Improvement was noted for all type of McAS. Complete response or major response (>50%) were noted for all respiratory (10), gastrointestinal (17), asthenia (3/3) and in 18 out of 20 patients with cutaneous symptoms. A milder improvement (<30%) was noted for all patients with neurological (14) and in 4/5 patients with musculoskeletal symptoms. Efficacy was maintained for all patients (50) during treatment (maximum of 12 years of follow-up) and 16 months after its discontinuation for 3 patients. Tolerability was reported to be good. Adverse events were reported for 5 patients and led to the withdrawal of the treatment in 2 patients.

Conclusions: Omalizumab seems to prevent life-threatening reactions associated with MCD and improves McAS. Randomized controlled studies are required to confirm its efficacy.