Churg-Strauss Syndrome (CSS) is a rare systemic necrotizing small vessel vasculitis associated with bronchial asthma, peripheral blood eosinophilia and eosinophilic lung infiltration. Skin changes compatible with vasculitis are present in about 75% of patients. Previous reports suggest that patients with CSS can be treated with anti-IgE (omalizumab) in addition to conventional therapy to achieve asthma control. Here we report the efficacy of a 6-month treatment with omalizumab in a patient with CSS characterized by severe asthma and urticarial vasculitis.

**Methods:** A 44 year old Caucasian female with a 5 year history of severe asthma, chronic urticaria and mild eosinophilia (1100/µL) was evaluated for possible CSS. Total serum IgE was 662 KU/L with positive skin prick tests for dust mites. Bronchial asthma was not controlled and FEV1 was 60% despite treatment with budesonide (640 mcg/die) and formoterol (18 mcg/die). Diffuse and confluent urticarial rash occurred in the last 6 months before evaluation and responded neither to prednisone (10 mg/die) and rupatadin (10 mg/die) nor to immunosuppressive agents (cyclosporin 200 mg/die or azathioprin 100 mg/die). The patient was treated, as add-on therapy, with omalizumab (300 mg s.c. every 2 weeks) accordingly to total IgE and weight parameters reported in the drug information leaflet.

**Results:** After 6 months of treatment the patient reported a significant improvement in asthma control with 50% reduction of nocturnal awakenings and asthma exacerbations and a major FEV1 improvement (101% at 16 weeks and 103% at 24 weeks). Eosinophil count was reduced to 600/µL. A 75% reduction of oral prednisone was registered after 8 weeks of treatment. Importantly, urticarial lesions disappeared after the first injection of omalizumab. Omalizumab injections were well tolerated and no adverse event was recorded.

**Conclusions:** This case suggests that omalizumab can be beneficial and safe in patients affected by CSS with severe asthma and urticarial vasculitis. In addition to its effect on serum IgE, efficacy of omalizumab in CSS may be related to an inhibitory effect on blood eosinophilia.

### 277 Serum Soluble Trail Levels in Patients With Severe Persistent Allergic Asthma: Its Relation to Omalizumab Treatment

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**Background:** The pathogenesis of allergic asthma and other allergic conditions are believed to be closely interrelated because of the similar dynamics of allergy-inducing cells and molecules, and the independent evidence for their clinical overlap. In this study we compare the diseases and the effect of Omalizumab treatment on the dynamics of cell apoptosis regulating molecules.

**Methods:** In the first group, 6 males and 8 females (a total of 14 patients) were selected with severe persistent asthma with a mean age of 42.4 years (Table 1). All patients received omalizumab therapy for 4 months, with treatment administered every 2 weeks. Symptoms and severity of allergic reactions were recorded before and after treatment with omalizumab. Clinical changes and adverse effects were assessed and recorded at each patient visit. The second group consisted of 14 newly diagnosed allergic asthma patients with mean age was 43.8 years. All of these patients were followed up in the Immunology Allergy Clinic of the Antalya Education and Training Hospital, and were evaluated by clinical status. The third group consisted of 14 healthy volunteers, with no difference in age and sex (mean age was 43.3 years). Serum sTRAIL levels in all individuals (patients and healthy controls) were measured by a sandwich enzyme-linked immunosorbent assay (Diaclone, France).

**Results:** There were no differences between the healthy controls, newly diagnosed allergic asthma patients and non-treated severe persistent allergic asthma patients during the active phase (P < 0.05). Interestingly, the variance levels in patients who received omalizumab treatment were significantly lower than the healthy controls.

**Conclusions:** In summary, we speculate that the physiological functions of sTRAIL in allergic conditions, and the elucidation of the molecular mechanisms by which sTRAIL: TRAIL receptor signals cells, will be of significant interest to the scientific allergy community in the coming years. Our study provides a novel perspective on severe persistent allergic asthma and the effect of omalizumab treatment on cell apoptosis, using serum sTRAIL measurements.