quality of life (QoL) according to Asthma Quality of Life Questionnaire (AQLQ) and use of health resources in the first 2 years (y).

Results: We analyzed 96 pts with a mean age (SD, range) of 45 (15;16–75), 69% females, who had a mean time since diagnosis of 21 (13) y. 77% of pts had positive skin-prick tests and/or RAST for perennial aeroallergens (18% were negative and 5% had missing data). In addition, 42% of pts had allergy to seasonal allergens (22% grass; 19% trees; 10% weeds; 7% molds) and 16% had other allergies (4.4% aspirin; 3.3% fruit; 3.3% antibiotics; 2.2% nuts/peanuts). The overall percentage of responders according GETE was 57%, and the mean number of clinically significant exacerbations decreased from 3.7 in the previous year to 1.0 and 0.3 in the 1st and 2nd y ($P < 0.05$ in both cases). Mean scores (SD) in ACQ improved from 2.6 (1.1) at baseline to 1.6 (1.2) at 1 year and 1.4 (0.9) at 2 year ($P < 0.05$ vs baseline in both cases). At 2 year, only 18% of pts were uncontrolled according to GINA criteria. A significant QoL improvement was observed at 1 year and 2 year: AQLQ scores of 5.7 (0.8) and 4.9 (0.4), respectively, vs 4.0 (1.1) at baseline (on a scale 1–7 [worst to best]; $P < 0.05$ in both cases). Maintenance oral corticosteroids (CE) use was lower at 1 year (6.9%) and 2 year (4.9%) compared with baseline (22.2%). There was also a decrease in the use of anti-leukotrienes (76% at baseline vs 36% at 2 year), anticholinergics (31% vs 15%), inhaled CE (12% vs 8%) and combined inhaled CE and LABA therapy (95% vs 80%). There were no serious adverse events.

Conclusion: The use of OMA in pts with uncontrolled severe persistent allergic asthma improves symptoms, exacerbations and QoL and reduces the need for concomitant medication, achieving disease control in 8 of 10 subjects. The results of clinical practice are consistent with those observed in clinical trials.

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Assesment the role of ACT, number of asthma attacks and asthma severity on good asthma control with logistic ROC regression model

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Background: Asthma control test (ACT) raised as a practical test for usage of patients and doctors for assessing asthma control in uncontrolled patients. In our study we aimed to evaluate the role of ACT alone and with other variables like age, gender, FEV1/FVC, existence of atopy and asthma severity on distinguishing of asthma control level.

Method: Two hundred and twenty-eight children with asthma (mean age 10.04 ± 2.71, boy percentage %66.7) followed in Pediatric Allergy Department of Gaziantep University Faculty of Medicine. Factors that can be used evaluating asthma severity were determined by univariate analyses. Variables with results of $P < 0.10$ in univariate analyses were included in logistic ROC regression analyses model. Significance of variables were showed by Odds ratios [%95 GA] and AUC values.

Results: After univariate analysis between controlled asthma group and uncontrolled asthma group; age ($P = 0.096$), ACT ($P < 0.001$), FEV1/FVC ($P = 0.038$), number of attacks ($P < 0.001$), BMI ($P = 0.088$), existence of atopy ($P = 0.092$) and asthma severity ($P < 0.001$) were included on regression model. In comparison of predictive value of ACT alone (AUC=0.865), regression model (AUC=0.913) showed higher predictivity with statistical significance ($P = 0.001$). One point increment in asthma severity were associated with decline in good asthma control chance 0.017[0.002–0.16] times.

Discussion: Compared to ACT alone considering of ACT with number of attacks and asthma severity raises the certainty in estimation of good asthma control.

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Effect of a costimulatory signal antagonist on steroid resistant asthma model

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Background: To investigate the role of helper T (Th) cells in steroid resistant (SR) asthma, steroid sensitive (SS) and resistant (SR) Th clones were selected *in vitro*, and then adoptively transferred into unprimed mice. Effect of CTLA4-Ig was analyzed both *in vitro* and *in vivo*.

Method: For *in vitro* evaluation, ovalbumin (OVA) reactive Th clones were cultured with antigen presenting cells and OVA in the presence of various concentrations of dexamethasone (DEX). Proliferative responses of Th clones were measured by ^{3}H-thymidine incorporation. For *in vivo*assessments, unprimed BALB/c mice were transferred with Th clones, challenged with OVA, and administered with DEX subcutaneously. Bronchoalveolar lavage fluid (BALF) was obtained 48 h after challenge, and the number of infiltrating cells was differentially counted. CTLA4-Ig was administered through nasal inhalation or venous injection.

Results: SS and SR clones were selected based on the effect of DEX on the proliferative responses of antigen-stimulated Th clones. Airway infiltration of eosinophils and lymphocytes of mice transferred with SS clones were effectively inhibited by the administration of DEX. In contrast, those of mice transferred with SR clones were not significantly inhibited by DEX. Administration of CTLA4-Ig significantly suppressed the proliferation of DEX-treated SR clones *in vitro*, and the eosinophil infiltration of SR asthma model transferred with SR clones *in vivo*.

Conclusion: Steroid sensitivity of Th clones assessed *in vitro* was consistent with that of adoptively transferred asthma model assessed *in vivo*. Costimulatory signal mediated through CD28 is crucial for the induction of steroid resistance both *in vitro* and *in vivo*.

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The observed incidence of adverse reactions in patients receiving omalizumab therapy in a tertiary allergy and asthma clinic in Canada

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Background: Omalizumab was approved for the use in moderate to severe allergic asthma beginning in Australia in 2002 and followed by countries in Europe, the United States and Canada. In 2014, omalizumab was also approved for use in patient with Chronic Spontaneous Urticaria (CSU). Current literature indicates that a low incidence of severe injection site reactions (12%), anaphylaxis (0.2%), and serum sickness (<1%) are seen in patients treated with omalizumab. To substantiate this, the occurrence of treatment related injection site reactions, anaphylaxis and serum sickness in our large Canadian allergy and asthma tertiary care clinic was assessed.

Method: A retrospective chart review of our database of omalizumab administration between 1998 and 2014 was performed.

Results: During clinical trials and with our post market experience, between 1998 and

2014, over 21 000 injections of omalizumab to more than 250 patients were administered. During that time no cases of anaphylaxis or serum sickness like symptoms were observed.

Two cases of significant injection site reactions involving localized swelling, bruising and discomfort were observed. In neither of these cases was treatment stopped due to the injection site reaction.

Conclusion: This analysis of the treatment of over 250 patients, during a period of 15.5 years, who combined received 21 000 injections of omalizumab confirms the low incidence of severe injection site reactions, anaphylaxis and serum sickness.