Clinical efficacy of cat or dog allergen immunotherapy. A real-life study

Silvia Uriarte, Joaquín Sastre

Fundación Jiménez Díaz, Departamento de Alergia, Madrid, Spain

Correspondence: Silvia Uriarte. sauriarte@fjd.es

Background: Few studies have demonstrated the efficacy of the subcutaneous immunotherapy (SCIT) in patients with cat and dog allergy.

Methods: Sixty-six allergic patients to cat and dog were selected from a previous study, which received SCIT Alutard® SQ (Alk-abelló, Spain) with cat or dog extracts. A rush schedule was applied with an infusion pump (Infusa T1®, Medis, Italy). Patients were evaluated with pulmonary function tests (spirometry, bronchodilation test), fractional exhaled nitric oxide (FeNO) and validated questionnaires, such as ESPRINT-15, AQLQ, ACT, Visual Analogue Scale (VAS), score of nasal, ocular and pulmonary symptoms and use of medication. These evaluations were done at baseline, six and 12 months. Wilcoxon test was used for statistical analysis.

Results: 38 were females and 28 males. Age ranged from 9 to 59 years. 98.5 % had rhinitis (65) and 97 % asthma (64), mostly had persistent respiratory symptoms and many years of evolution. More than 90 % of patients (61) kept the pet at home during all the study. FEV₁ in liters and percent predicted improved from baseline to visit at 6-months (p = 0.0412, p = 0.0234, respectively), as well as the FeNO values (p = 0.031).

FeNO was elevated in 77.1 % of patients (47) at baseline visit, which remained elevated at 6 and 12 months visit, in 49.1 % (27) and 54.6 % (30) of patients. The bronchodilation test did not change. A significant decrease in the different scores between baseline and 6-month visit were obtained: ESPRINT-15 (p < 0.001 in each dimension), AQLQ (p = 0.0001 in each dimension), ACT (p = 0.0001), VAS (p = 0.0001), lung (p = 0.0001), eyes (p = 0.0001) and nose (p = 0.0001) symptoms. The reduction in the score of all questionnaires between the 6-month and 12-month visits was more modest. The great improvement was seen with pulmonary symptoms, followed by nasal symptoms and ocular symptoms. The use of medication decreased significantly throughout all the study (p = 0.0001).

Conclusion: This real-life study shows evidence of a significant clinical efficacy of cat and dog SCIT. Respiratory function tests, symptoms and quality of life showed an improvement in the first 6-months of treatment, which was maintained at 12-months of treatment.

Keywords: Immunotherapy; Real-life study