

A22

Yana Kryvokhyzha

Advisor(s): Rauno Joks

Allergen subcutaneous immunotherapy may be protective against adult-onset food allergy

We have shown that higher BMI is associated with adult-onset shrimp allergy, independent of pre-existing cross-reactivity with dust mite and cockroach sensitization. Allergen immunotherapy of patients with allergic rhinitis may prevent progression of respiratory disease, such as asthma. We evaluated the association of history of allergen subcutaneous immunotherapy (SCIT) to reports of new adult food allergy (FA) in our outpatient clinic population.

A retrospective chart review of adults (n=99) receiving ongoing respiratory allergy care was conducted to determine factors associated with IgE-mediated new onset food allergy. Respiratory allergy (allergic rhinitis and/or asthma) had been diagnosed in (n=85), adult food allergy (n=33), and shrimp specific IgE (n=6). There were (n=29) adults who had received SCIT and (n=4) of those had food allergy. There were (n=63) adults who had not received SCIT and (n=29) of them had food allergy. Statistical analyses were conducted with logistic regression, chi-square and Pearson's correlation coefficient.

We found the prevalence of FA was lower in patients who were on SCIT. SCIT predicted significantly lower odds of adult-onset FA, after adjusting for age, sex, race, and BMI, (OR=0.129, 95% CI 0.027-0.608, p-value=0.01). BMI was associated with significantly higher odds of FA after adjusting for SCIT, age, sex, and race, (OR=1.179, 95% CI 1.076-1.293, p-value <0.001). BMI correlated negatively with SCIT, $r=-0.212$, p-value 0.049, and positively with adult food allergy, $r=0.490$, p-value <0.001. Subcutaneous immunotherapy may be protective against development of adult-onset food allergy after multiple covariate adjustment.