Title: Community private practice clinical experience with sesame oral immunotherapy: an analysis of adverse events and quality of life
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Background: Allergic reactions to sesame have increased in prevalence in the US. Oral immunotherapy to foods has been shown to have a significant improvement on quality of life. There are limited reports assessing the benefits and risks of sesame oral immunotherapy (S-OIT) in children with a sesame allergy.

Methods: A retrospective chart analysis of 23 patients who underwent S-OIT at NEFATC from 2017 to 2020 was performed with a validated Food Allergy Quality of Life Questionnaire (FAQQLQ) and a survey on adverse reactions (AR) after OIT. Patients that were between 2 months and 18 years of age (30.5% female and 69.5% male) with a documented history of sesame allergy were reviewed.

Results: The mean duration that patients were treated in buildup phase was 9.68 +/- 1.96 months. Twenty-one patients (91.3%) had at least 1 gastrointestinal reaction; 18 (78.3%) had at least 1 cutaneous reaction; 6 (26%) had at least 1 respiratory reaction. Three patients (13%) had at least 1 systemic reaction. Increasing sesame IgE levels were associated with increased odds of having at least 1 adverse event (OR: 1.065 per 1kU/L of IgE increase; 95% CI: 1.015-1.15; p-value: 0.0344). There is a significant positive relationship between the presence of asthma and the number of cutaneous reactions (OR 2.48; 95% CI: 1.04-3.91; p-value 0.0049). Three patients ultimately discontinued sesame OIT. FAQQLQ-parental form showed a statistically significant improvement in food-related anxiety (-0.7732684) and social/dietary limitation (-0.687).

Conclusions: Our single-center study correlates clinical characteristics of patients and AR, implying that sesame OIT may be safe and easily adaptable to private practice. Further prospective studies would be helpful to fully assess these relationships. QoL is significantly improved with S-OIT.

Word Count: 275