

Oral Food Challenge (OFC) Trends & Outcomes in a Hospital-Based Allergy/Immunology Practice

Mahta Mortezaei^{1,2}, Allison Ramsey^{1,2}, Theresa Bingemann², Syed Shahzad Mustafa^{1,2}

1. Rochester Regional Health, Department of Allergy, Immunology and Rheumatology. 2. University of Rochester School of Medicine and Dentistry

Prospective study looking at “real world outcomes” of OFCs

Rationale

There is limited data regarding oral food challenges (OFC) in non-academic settings. We characterized OFCs in an outpatient allergy/immunology practice.

Methods

OFCs performed from 6/2019-8/2019 at Rochester Regional Health were tracked. Demographic information, clinical history of food allergy (FA), food-specific skin prick testing (SPT), serum specific IgE (sIgE), challenge indication, and challenge outcome were collected.

Challenged Foods

Food Challenged	N (%)	Median Skin Prick (IQR)	Median sIgE (IQR)
Tree nuts	45 (32)	3 (3-5)	0.52 (0.05-2.22)
Peanut	18 (13)	4.5 (3-10)	0.7 (0.29-2.88)
Baked Egg	18 (13)	5 (3-8)	14.7 (4.79-17.6)
Concentrated Egg	17 (12)	5 (3-6)	4.76 (1.59-25.7)
Sesame	10 (7)	9.5 (5-10)	0 (0-2.4)
Concentrated Milk	7 (5)	7.5 (6.25-9.5)	2.18 (1.41-9.67)
Baked Milk	6 (4)	7 (5.75-8.75)	2.05 (1.58-3.03)
Other	17 (14)		

* Other (foodn)= soy/1, finned fish/2, shellfish/3, chickpeas/2, banana/1, strawberry/1, pumpkin/squash/3, peas/1, green beans/1, lamb/1, chicken/1

137 OFCs over 3 months (11.4 challenges per week)

Median age was 7 years
66% male (91/137)

74% of OFC Passed (101/137)

#1 Tree nuts

25% of OFC Failed (34/137)

#1 Baked Egg 27% (9/34)
#2 Tree nuts 23% (8/34)
#3 Sesame 15% (5/34)
#4 Peanut 12%
#5 Milk
#6 Finned Fish 6% (2/34)

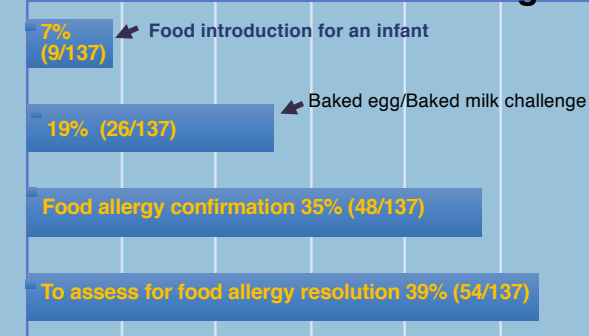
1% (2 patients) of OFC were **Incomplete**

10 required epinephrine

17 treated with antihistamine alone

7 were observed and symptoms resolved without intervention

Reason For Oral Food Challenge



Conclusion

The most common reason for performing an OFC was to assess for resolution of the allergy followed by confirmation of the food allergy. Tree-nuts were the most commonly tested food. The majority of failed OFC were seen with baked egg and tree nuts. Only 7% of all patients who underwent an OFC required treatment with epinephrine.