



POSTER PRESENTATION

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Review of food challenges in a pediatric tertiary care centre

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Background

Oral food challenges are essential to determine when foods can be safely reintroduced in children with diagnosed food allergies. Identifying risks for failed challenges and severity of reactions is important for continuing safe practices.

Material and Methods

A retrospective chart review from January 2008 to March 2010 was conducted. Data extracted included age, food tested, ImmunoCAP level, reaction, type of symptoms and treatment received.

Results

Of 322 challenges (median age 4.8 years), 204 (63%) passed, 89 (28%) failed and 29 (9%) refused to complete the challenge. Passed challenges included 54 (26%) egg, 52 (25%) peanut, 32 (16%) milk, 22 (11%) tree nuts, 17 (9%) fish and shellfish and 27 (13%) others. Failed challenges included 43 (48%) peanut, 17 (19%) egg, 12 (13%) milk, 5 (7%) tree nuts, 4 (4%) fish and shellfish and 8 (9%) others. ImmunoCAP medians for passed challenges were peanut 0.35 KU/L, egg 0.45 KU/L and milk 0.35 KU/L. Failed challenges ImmunoCAP medians were peanut 0.74 KU/L, egg 0.95 KU/L and milk 0.97 KU/L. Symptoms included 77 (86%) cutaneous/mucous membrane, 8 (9%) respiratory and 19 (21%) gastrointestinal. No patients had cardiovascular symptoms. Epinephrine was required to treat 14 (16%), prednisone in 10 (11%), antihistamine in 49 (55%) and bronchodilator in 2 (2%) reactions. 35 (39%) of patients did not require any treatment. There were no hospital admissions or deaths reported.

Conclusions

Reactions associated with controlled food challenges are frequently mild and reversible with treatment. ImmunoCAP levels in successful challenges tend to be lower compared to failed challenges.

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