Home based oral immunotherapy with baked egg protocol
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Background: Hen’s egg (HE) allergy is one of the commonest food allergies in young children with a natural history to resolve, although recent evidence suggests a greater prevalence and more persistent nature. Treatment strategies of allergen avoidance anticipating that the child will grow out of the allergy are being replaced by interventions like oral immunotherapy (OI). The recipes used in HE OI are however in forms of egg not commonly ingested and are therefore considered experimental and not suitable for widespread clinical application.

Methods: We developed a recipe of baked egg biscuits for use in HE OI and implemented a home-based slow up-dosing programme. Five recipe stages were provided to create enough doses to allow gradual increases in allergen exposure. Eligible subjects were recruited at routine allergy clinic visits. Persisting HE allergy was confirmed mostly by recent contact symptoms or, if not, by a positive baked egg challenge. As allergic symptoms are frequent in OI, families had ready access to dietetic advice on dosing and symptom treatment.

Results: Fifteen subjects (9 boys) age from 6 to 17 years (median 11 years 2 months) were treated. Eight achieved full tolerance (equivalent to one egg), 5 became partially tolerant allowing them to include dietary traces and 2 failed. Allergic symptoms during OI were mild with oral pruritus, abdominal pain, nausea and vomiting and urticaria or eczema flares, successfully treated with antihistamines.

Conclusion: We have demonstrated the efficacy and safety of a HE OI programme using an easy-to-make baked egg recipe. As the biscuit form of egg presentation is widely ingested, we propose the recipe to enable HE OI be more widely clinical available.