Real world safety and efficacy outcomes during oral immunotherapy with characterized peanut protein

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Objectives: To assess efficacy and adverse events observed in peanut allergic children undergoing peanut oral immunotherapy (PNOIT) in the UK’s only peanut immunotherapy service.

Patients and Methods

- 220 children, aged 7-16y, attending the Cambridge Peanut Allergy Clinic for PNOIT
- Seven up-dosing steps of 2 to 200mg CA001 characterised peanut protein (Figure 1)
- Up-dosing occurred in allergy clinic with 2h observation; daily treatment continued at home
- The PNOIT initiation day had only a single low dose (2mg) and short stay (2h)

97% of patients successfully were able to continue to take the maintenance doses

- 68,000 doses of immunotherapy were consumed
- Day 1 single low-dose was well-tolerated with few symptoms and no dropouts (Figure 2)
- 93% tolerated a 1000mg peanut challenge (Figure 4b)
- Peanut SPT and serum IgE to peanut and Ara h 2 reduced significantly over 24m treatment (Figure 3)

Conclusions

- A short seven-stage regimen achieving maintenance dose in 3.5 months using characterised peanut protein was well tolerated, with few reactions and mostly minor symptoms
- A 1000mg challenge dose was well tolerated following OIT at 200mg maintenance dose