EDITORIAL

Peanut allergy – is it time to change infant feeding practice?

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EARLY INTRODUCTION OF PEANUT INTO THE DIET OF HIGH-RISK BABIES SIGNIFICANTLY decreases the frequency of peanut allergy at five years of age, a UK open label single-centre study has found.[1]

A group of 640 infants aged 4 to 10 months with severe eczema, egg allergy or both were randomly assigned to consume or avoid peanuts until five years old. The researchers then challenged the participants with peanut to diagnose clinical allergy. Peanut allergy prevalence in the control arm at five years was 13.7%, compared with only 1.9% in the treated group ($P < 0.001$). There was no significant difference in the incidence of severe adverse events between the two groups.[1]

The prevalence of peanut allergy has risen over the past two to three decades, and now affects 1-2% of children.[2] It is the most common cause of severe and fatal reactions to foods. Affected families have a reduced quality of life caused by anxiety about severe reactions and difficulty in choosing appropriate foods. Disease-modifying treatments are beginning to emerge, and will be beneficial to those who already have the condition.[3]

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Primary prevention is an important aim for future therapies. Committee on Toxicity guidance published by the Department of Health (DH) in 1998 recommended the exclusion of allergenic foods, including peanut from the diet of infants at high risk of allergy, and their mothers during pregnancy and breastfeeding. Studies failed to show a decline in the prevalence of peanut allergy during the time the guidance was in place. This advice was changed in 2008, recommending that pregnant and breastfeeding mothers no longer need to avoid peanut, but because of lack of evidence, no recommendation was made regarding introduction of peanut into the diet of high-risk infants.

The oral route of exposure is generally associated with development of immunological desensitisation, or tolerance. This has been shown in several studies of oral immunotherapy with peanut showing a strong change towards tolerance of regular peanut ingestion, following treatment.[3,4]

Observational studies have suggested that early introduction of peanut, instead of avoidance, may be associated with a reduction in allergy. The prevalence of peanut allergy is ten times higher among Jewish children in the UK compared with Israeli children of similar ancestry. In Israel, peanut is introduced into the diet of children by 7 months, with the majority consuming it by 12 months. This is in contrast to the UK, where peanut is generally avoided in infancy.

The present study was well designed and showed a strong effect in its primary outcome. The question many will ask is can these findings now be translated into advice for our patients? The answer is no.

The generalisability of the method was hampered by stringent selection criteria. Infants were required to have severe eczema and/or egg allergy, meaning this advice is not suitable for the general population. Further, children were also screened for peanut allergy and if positive excluded from participation in the trial. Nine per cent were already deemed likely to be allergic. Attempting peanut introduction in the community without screening out such children would clearly be dangerous. Initiation of this screening procedure in general practice would result in an unmanageable increase in referrals to specialist allergy services in the UK.

A further point is how adherence to this treatment would work in the real world. Study participants received frequent visits and follow-up calls from the research team resulting in a 92% retention rate, which is not likely to be replicated in the community. The risk of severe reactions and loss of tolerance occurring in the community, as a consequence of patients adhering less well to treatment is not defined, and could be significant.

While this study was encouraging and has proved the principle, it does not by itself tell us how to implement this intervention in the community. Therefore, until studies with a more pragmatic design are published, for example the EAT study due to report later this year, we should continue to advise parents to follow the current DH advice.

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