

Correspondence

A role for food allergy testing in eosinophilic esophagitis

To the Editor:

We read with interest the article by Henderson et al¹ comparing the effectiveness of diet therapies in the treatment of eosinophilic esophagitis (EoE). As the first reported head-to-head comparison of multiple approaches to dietary therapy for EoE, this article will undoubtedly garner much attention. As such, we would like to raise some points that bear mentioning.

First, this study reinforces others² that EoE is a disease driven by food allergy. The high response to elemental diet, and an even higher degree of “complete remission” (≤ 1 eos/hpf), confirms previous experiences with complete food elimination as EoE’s most effective treatment. The drawbacks of elemental diet have led many to search for less restrictive diet therapies, namely, 6 food elimination diet (SFED) and skin prick test/atopy patch test (SPT/APT)-directed diets.

In this retrospective analysis, SFED and SPT/APT-based elimination therapies were not statistically different in terms of response, yet the authors suggest that skin testing has limited usefulness in directing dietary elimination and subsequent reintroduction. Undoubtedly, there are limitations to available forms of skin testing, the biggest seemingly the poor predictive value of skin testing for milk in EoE.

Spergel et al³ recently reported that 77% of 319 patients with EoE responded to diet modifications guided by SPT/APT *plus* empiric milk elimination compared with 53% of those on SFED or SPT/APT-based elimination alone. Excluding skin testing for milk, which had a negative predictive value of 44%, negative predictive values for other foods averaged 92%, which would make skin testing a good roadmap for food elimination and reintroduction in our opinion. We would also argue that as both studies^{1,3} showed fewer foods eliminated via directed diet therapy, treatment based on SPT/APT than on SFED is easier for patient/family even if results are comparable.

With further refinement, skin testing for EoE may lead to improved results. Interpretation of APT is an inherently subjective form of testing. Heine et al’s study⁴ proposing standardized interpretation of APT, using double-blind placebo-controlled food challenges, showed that only 1 to 3 papules on APT had a positive predictive value of 54% for foods in children with atopic dermatitis, raising concern that some clinically relevant allergens may be overlooked, because of their modest appearance, by many who read the studies.

We suggest that incorporating other testing methods may improve the detection of food allergy in EoE, and hence improve results. For example, fresh food SPT has been shown to identify food sensitivities not detected with commercial extracts in both

children and adults with EoE^{5,6} and is more effective in patients with oral allergy syndrome, foods the authors restricted in their directed diet cohort. Finally, Erwin et al⁷ demonstrated food sensitization by ELISA that was not detected by SPT in 42% of their patients with EoE, most notably to milk.

In summary, on the basis of this study, some readers may conclude that directed dietary elimination and reintroduction based on SPT/APT is not a worthwhile treatment approach. We would argue that combining this study with other available evidence suggests that diet modification based on SPT/APT is a viable approach in patients with EoE. We also feel that directed dietary therapy may ultimately be superior to SFED and may begin to approach the results seen with elemental diet with further research into standardizing techniques for the interpretation of APT, by evaluating other potential testing methods, and perhaps empirically eliminating milk regardless of testing results.

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