

## Correspondence

## Reply

To the Editor:

We thank Drs Hsu and Mehr<sup>1</sup> for their comments on our recent article on food protein-induced enterocolitis syndrome (FPIES) to hen's egg.<sup>2</sup> From their cohort of 38 patients, they highlighted 4 cases of FPIES to hen's egg and concluded that egg is a common FPIES trigger, accounting for 10% of cases.

Among their patients, 2 were classified as having atypical FPIES (ie, associated with large positive skin test responses to egg white), which is an unusually high proportion of IgE positivity.<sup>1</sup> In addition, it is unclear whether children had IgE-mediated allergy to other foods. The age of egg introduction was either young (<9 months of age) or significantly delayed (patient 3 at 4 years of age). It would have been interesting to compare the ages of dietary introduction of egg among the index cases and the remaining 34 patients.

In our cohort of patients, including 161 patients with FPIES prospectively recruited between 2001 and 2011, only 3 (1.9%) patients were given a diagnosis of FPIES to hen's egg (unpublished data). The diagnosis was made based on clinical criteria<sup>3</sup>; one had a confirmatory food challenge associated with a significant increase in neutrophils from an initial count of 2200 to 8000 cells/mm<sup>3</sup> at 6 hours. The median age at diagnosis was 29 months (range, 11-36 months). One patient had an associated FPIES to barley, and the 2 other patients reacted only to egg. None of the patients had positive skin test responses or specific IgE to egg white.

FPIES to egg has rarely been reported in the literature.<sup>1,2,4-6</sup> Since the initial study by McDonald et al<sup>4</sup> reporting 3 cases of FPIES to hen's egg among 10 infants with milk or soy FPIES (30%), further studies reported a lower frequency of FPIES to egg, ranging between 0% and 10%.<sup>1,5-7</sup> These population-based differences in the reported egg FPIES frequency are likely to be explained by different dietary habits, particularly delayed introduction of egg. Indeed, it has been shown that the age of onset of FPIES differs according to the food triggers and reflects the usual sequence of introduction of foods; that is, FPIES to milk or soy occurs earlier than FPIES caused by solid foods (median

age, 1 and 5.5 months, respectively).<sup>8</sup> In addition, it has been strongly suggested that delayed introduction of solid foods could avoid sensitization/reactions during a possible period of susceptibility.<sup>8</sup> In our experience the frequency of reactions to hen's egg is higher in infants exposed earlier in life than when the first exposure is delayed.

Further studies are needed to clarify the effect of timing of food introduction on natural FPIES history in susceptible patients. We agree with Drs Hsu and Mehr that recognizing hen's egg as a potential trigger of FPIES is of major importance because delayed diagnosis or misdiagnosis can lead to incorrect treatment, invasive treatment, or both.

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