

## Correspondence

**Effect of probiotic supplementation during pregnancy and breast-feeding on the allergic sensitization in the infantile eczema**

To the Editor:

We read with great interest the article by Rautava et al<sup>1</sup> in which they investigated the role of probiotic intervention regimens in reducing the risk of eczema in infants. Mothers with a history of allergic disease and atopic sensitization were randomly assigned to the *Lactobacillus rhamnosus* LPR and *Bifidobacterium longum* BL999 (LPR1BL999) group, the *Lactobacillus paracasei* ST11 and *B longum* BL999 (ST111BL999) group, or the placebo group during 2 months before and after the expected date of delivery. The authors followed all the infants until the age of 24 months and performed regular clinical examinations scheduled at 1, 3, 6, 12, and 24 months to identify any case of eczema. In addition, they performed skin prick tests at 6, 12, and 24 months to confirm, if any, the diagnosis of atopic sensitization. Ultimately, they found that infants of mothers receiving any of the probiotic supplements developed significantly less episodes of eczema when compared with the placebo group. Skin prick test results, however, were similar between the groups. We have several concerns regarding the interpretation of these results.

Among children who sustain an episode of atopic dermatitis during the first 2 years of life, more than 50% do not demonstrate any signs of IgE sensitization. This condition is usually defined as nonatopic eczema, and these children become sensitized during the course of atopic dermatitis.<sup>2</sup> Although Rautava et al<sup>1</sup> demonstrated a significant decrease in the incidence of clinical eczema in children whose mothers received any of the probiotic supplements; we believe that because of the relatively short follow-up time (2 years) the results may

not be extrapolated to other allergic conditions such as asthma and allergic rhinitis.

Given the similarity of the skin prick test results between the study groups, one may say that Rautava et al's study reflects a decreased incidence for nonatopic eczema rather than atopic eczema in children whose mothers received any of the probiotic supplements. Atopic and nonatopic eczema do not evenly influence the development of allergic disorders in the long term. Early atopic sensitization plays an important role in the prognosis of atopic dermatitis. In a study by Illi et al,<sup>2</sup> children with atopic dermatitis and a negative allergen sensitization were followed until the age of 7 years and were demonstrated not to experience any signs of wheezing or bronchial hyperactivity. To conclude, the result of this study is limited by the fact that it demonstrates the beneficial effects of probiotic supplementation on nonatopic eczema but not atopic eczema.

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