

## Correspondence

**Peanut allergy and the impact of maternal consumption during pregnancy and breast-feeding**

To the Editor:

A lack of studies supporting the relevance of preventing early exposure to peanuts in at-risk families had caused guidelines to change in 2008, leaving clinicians and patients confused as to how to approach this issue. The study published in the December 2010 issue of the *Journal* showing a strong association between maternal consumption of peanuts during pregnancy and the risk of peanut sensitization by Sicherer et al.<sup>1</sup> is a welcome sight because it helps clarify the potential place for prevention. We recently reported a case-control study examining 208 infants with confirmed peanut allergy.<sup>2</sup> Interestingly, we also observed an association between maternal ingestion of peanuts during pregnancy and the risk of being allergic to peanuts with an odds ratio of 4.22 (95% CI, 1.57-11.30). It is worth underscoring that despite differences in the population studied (sensitized vs allergic) and methodologies (cohort vs case-control), both studies have shown the same trend and underlined the potential risk of peanut consumption during pregnancy.

As was the case for Sicherer et al.,<sup>1</sup> we also observed an increased risk associated with the ingestion of peanuts while breast-feeding (odds ratio, 2.28; 95% CI, 1.31-3.97). However, these authors found no discernable association when using multivariate analysis ( $P > .8$ ). One must remain cautious when interpreting this. Although the effect of diet during pregnancy can be readily analyzed independently of diet during lactation (by examining mothers who do not breast-feed), the opposite may be much harder to achieve. The 2 variables are extremely dependent, with women eating peanuts while breast-feeding generally also doing so during their pregnancy. When comparing both variables, only a small number of patients can end up making the difference. Here, results might have been different if more mothers had been eating peanuts during pregnancy and not during breast-feeding and vice versa. Compared with the results of Sicherer et al.,<sup>1</sup> in our study, correcting for diet during pregnancy had a much more modest effect on the association with peanut consumption during breast-feeding (odds ratio, 1.68; 95% CI,

1.00-2.83; unpublished data, Des Roches A, July 2010). For these reasons and because allergic reactions to food allergens passing through human milk have been previously reported<sup>3</sup> and therefore could constitute a potential route for sensitization, we believe maternal consumption of peanuts cannot be discarded as a risk factor at this time. Randomized clinical trials will be needed to determine that risk.

Finally, as discussed in a recent article by Ben-Shoshan et al.,<sup>4</sup> it is intriguing to note that in Montreal, where peanut avoidance during pregnancy and lactation is promoted by many physicians, the prevalence of peanut allergy seems to have stabilized compared with other places where it is still increasing. Could the stabilization result from these prevention efforts, or is it just that peanut allergy has reached its peak? The answer to this question is still not available.

Anne Des Roches, MD, FRCPC, FAAAAI<sup>a</sup>

Philippe Bégin, MD, MSc<sup>a</sup>

Claire Infante-Rivard, MD, PhD<sup>b</sup>

Jean Paradis, MD, FRCPC<sup>a</sup>

Louis Paradis, MD, FRCPC, FAAAAI<sup>a</sup>

From <sup>a</sup>the Department of Pediatrics, Service of Allergy and Clinical Immunology, Centre Hospitalier Universitaire Sainte-Justine; and <sup>b</sup>the Department of Epidemiology, Biostatistics and Occupational Health, Faculty of Medicine, McGill University, Montreal, Quebec, Canada. E-mail: a.des.roches@umontreal.ca.

Disclosure of potential conflict of interest: The authors have declared that they have no conflict of interest.

## REFERENCES

1. Sicherer SH, Wood RA, Stablein D, Lindblad R, Burks AW, Liu AH, et al. Maternal consumption of peanut during pregnancy is associated with peanut sensitization in atopic infants. *J Allergy Clin Immunol* 2010;126:1191-7.
2. DesRoches A, Infante-Rivard C, Paradis L, Paradis J, Haddad E. Peanut allergy: is maternal transmission of antigens during pregnancy and breastfeeding a risk factor? *J Investig Allergol Clin Immunol* 2010;20:289-94.
3. Des Roches A, Paradis L, Singer S, Seidman E. An allergic reaction to peanuts in an exclusively breastfed infant. *Allergy* 2005;60:266-7.
4. Ben-Shoshan M, Kagan RS, Alizadehfard R, Joseph L, Turnbull E, St Pierre Y, et al. Is the prevalence of peanut allergy increasing? A 5-year follow-up study in children in Montreal. *J Allergy Clin Immunol* 2009;123:783-8.

doi:10.1016/j.jaci.2011.03.047