

Letter to the Editor

Cow's milk allergy: A Diagnostic Challenge

Dear Editor,

We read with interest the educational review by Eigenmann (1) in which three cases of cow's milk allergy (CMA) are discussed and general recommendations for the diagnostics and clinical management of CMA are given. The author presents a diagnostic flow chart, on which we would like to comment.

Nowadays, the double-blind, placebo-controlled food challenge (DBPCFC) is the gold standard for the diagnosis of food allergy. The DBPCFC is part of a diagnostic procedure that includes three phases – elimination of the suspected food, challenge with the suspected food, and re-elimination. If symptoms improve significantly during elimination, it is advocated to perform a food challenge (preferable a DBPCFC) followed by a re-elimination period to confirm the diagnosis. If symptoms do not disappear during an adequate elimination period, it is unlikely that these rely on food allergy and thus a food challenge will be superfluous.

When symptoms suggestive for a non-IgE-mediated CMA are present and an avoidance diet is unsuccessful, it is not logical to perform a standardized food challenge as proposed in the diagnostic flow chart, because it is unlikely that a food allergy will be the cause of the symptoms. Furthermore, interpretation of the results of the challenge test is not possible when symptoms already exist before the challenge.

The diagnostic flow chart illustrates that when symptoms suggestive of non-IgE-mediated CMA are present and an avoidance diet is successful, only follow-up of CMA is sufficient. This suggests that in this specific situation a food challenge is not necessary to confirm the diagnosis, with which we disagree. It is well known that diagnosis of food allergy based on a successful avoidance diet only will result in a large number of false-positive diagnoses. The importance of performing a food challenge is confirmed by studies which have shown that only 64–81% of the food challenges in children with symptoms suspected for food allergy are positive (2, 3). This implies that not all symptoms suspected for food allergy indeed rely on a food allergy. Moreover, an unnecessary avoidance diet may lead to acute allergic reactions in children with atopic eczema dermatitis syndrome after CMA exposure later in childhood (4).

The diagnostic flow chart starts with determination of the specific IgE value and/or a skin prick test (SPT) when symptoms of IgE-mediated CMA are present. Although specific IgE measurements, SPT and atopy patch tests can be of value in the diagnostic pathway and follow-up of CMA, the results of these tests are not sufficient to predict the outcome of a food challenge test, i.e. to diagnose CMA. The results of studies using specific IgE cut-off points or skin prick test weal size for the prediction of food allergy vary widely (5, 6). For the above-mentioned reasons the proposed diagnostic algorithm is confusing. The DBPCFC remains the gold standard in the diagnostic process of IgE mediated and non-IgE-mediated CMA.

*Anders O. J. van Thuijl,
Yvette Loeffen,*

*Wim M. C. van Aalderen and
Aline B. Sprickelman*

*Department of Pediatric Pulmonology,
Emma Children's Hospital,
Academic Medical Center,
Amsterdam,
PO Box 22660,
1100 DD Amsterdam,
The Netherlands
E-mail: a.o.vanthuijl@amc.uva.nl*

References

1. EIGENMANN PA. The spectrum of cow's milk allergy. *Pediatr Allergy Immunol* 2007; 18: 265–71.
2. BREUER K, HERATIZADEH A, WULF A, et al. Late eczematous reactions to food in children with atopic dermatitis. *Clin Exp Allergy* 2004; 34: 817–24.
3. NIGGEMANN B, SIELAFF B, BEYER K, BINDER C, WAHN U. Outcome of double-blind, placebo-controlled food challenge tests in 107 children with atopic dermatitis. *Clin Exp Allergy* 1999; 29: 91–6.
4. FLINTERMAN AE, KNULST AC, MEIJER Y, BRUIJNZEEL-KOOMEN CA, PASMANS SG. Acute allergic reactions in children with AEDS after prolonged cow's milk elimination diets. *Allergy* 2006; 61: 370–4.
5. CLOUGH GF, LUCAS JS. Reinventing the weal? *Clin Exp Allergy* 2007; 37: 1–3.
6. EIGENMANN PA. Are specific immunoglobulin E titres reliable for prediction of food allergy? *Clin Exp Allergy* 2005; 35: 247–9.