

## Letter to the Editor

# Do we have to recommend not using oat-containing emollients in children with atopic dermatitis?

Emollients are recommended by international guidelines as first-line agents in the management of atopic dermatitis (AD), which occurs in 10–20% of children in the western countries (1). They improve the cutaneous barrier function and reduce xerosis (1) and some of them, which contain oat extracts, display anti-inflammatory properties (2) and may reduce steroid consumption when used as adjuvants in AD management (1).

However, a study by Boussault et al. (3) recently published in *Allergy*, suggests that oat sensitization in children with AD seen for allergy-testing would be more common than expected. In this study, oat sensitization was observed in 32.5% of children with AD, 14.6% showing positive patch tests with oat extracts and 19.2% positive skin prick tests with oat pollen.

The authors explained this prevalence by the widespread use of oat-containing topicals in the early age in atopic children whose immature epidermal barrier could have been more reactive. They concluded by recommending as a safety-first principle not using topical adjuvant treatments containing oat proteins in atopic children.

Though the high level of oat-sensitization may be surprising as more than 8 million oat-based cosmetics are sold in the world every year and very few cases of allergic contact dermatitis to oat were reported in children for over 20 years (De Paz Arranz, 2002; Riboldi, 1988), we do not want to question the results of this study *per se*, but rather only its conclusion.

The authors' recommendation, as a precaution against the use of oat-containing emollients in atopic children, seems exaggerated taking into account the limited evidence suggesting that a repeated use of oat-based topicals in the early age may induce sensitization in atopic children. Repeated open application tests with an oat-based emollient (Rhealba® dermocosmetics from Pierre Fabre Laboratories) were performed on already sensitized children and though 32% of oat-containing emollient users *vs* 0% of nonusers had positive patch tests, it does not provide evidence implicating the oat-based emollients in sensitization. These results are not in agreement with other previous studies: Rancé et al. (4) did not observe any significant difference of sensitization between oat-based emollient-users and nonusers and in the Pigatto study (5), which evaluated the frequency of sensitization to oat and rice colloidal suspensions in 65 atopic children *vs* healthy controls, none of atopic children experienced any allergic reaction with oat patch tests, though they were 6 months–2 years old, an age range for which Boussault et al. (3), described the highest prevalence of sensitization with 45% of positive atopy patch tests. Furthermore, in a pilot study carried out in our unit (6), the daily and maximized application of two colloidal Rhealba® oat-based cosmetics (emollient and soap-free cleansing bar) during 3 weeks in cereal-sensitized adults with whom the active AD did not trigger any local or systemic, immediate or

delayed hypersensitivity manifestation, was well tolerated and eventually improved the skin inflammation in the majority of patients. This treatment did not aggravate AD: no AD flare and no pruritus were observed during the study (6). Nevertheless, comparisons between the studies are difficult on account of differences of methodologies (concentrations, type of allergen, study population...). Finally, the recent results of immunization performed in a murine model of AD developed in our unit (7) call into question oat allergenicity: Rhealba® oat colloidal extract was not able to trigger any immunization reaction in this model (Anca Hennino, personal data).

Therefore, to determine the role of oat-based emollients in oat sensitization of atopic children in a definitive manner, it is necessary to perform a long-term randomized controlled study evaluating the effect of a repeated and maximized application of an oat-containing emollient *vs* oat-free emollient in a large population of atopic children.

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## References

1. Hanifin JM, Cooper KD, Ho VC, Kang S, Krafchik BR, Margolis DJ et al. Guidelines of care for atopic dermatitis, developed in accordance with the American Academy of Dermatology (AAD)/American Academy of Dermatology Association "Administrative Regulations for Evidence-Based Clinical Practice Guidelines". *J Am Acad Dermatol* 2004;**50**:391–404.
2. Aries MF, Vaissiere C, Pinelli E, Pipy B, Charveron M. Avena Rhealba inhibits A23187-stimulated arachidonic acid mobilization, eicosanoid release, and cPLA2 expression in human keratinocytes: potential in cutaneous inflammatory disorders. *Biol Pharm Bull* 2005;**28**:601–606.
3. Boussault P, Léauté-Labrèze C, Saubusse E, Maurice-Tison S, Perromat M, Roul S et al. Oat sensitization in children with atopic dermatitis: prevalence, risks and associated factors. *Allergy* 2007;**62**:1251–1256.

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4. Rancé F, Dargassies J, Dupuy P, Schmitt AM, Guerin L, Dutau G. Faut-il contre-indiquer l'utilisation des émollients à base d'avoine chez l'enfant atopique? *Rev Fr Allergol Immunol Clin* 2001;**41**:477–483.
5. Pigatto P, Bigardi A, Caputo R, Angelini G, Foti C, Grandolfo M et al. An evaluation of the allergic contact dermatitis potential of colloidal grain suspensions. *Am J Contact Dermat* 1997;**8**:207–209.
6. Jean-Decoster C, Goujon C, Dahel K, Bottiglioli D, Lahbari F, Nicolas JF et al. Treatment of atopic dermatitis in cereal-sensitized adults with an emollient containing Avena Rhealba®. *Journées Dermatologiques de Paris* 2006. *Ann Dermatol Venereol* 2006;**133**:s4. [Poster]
7. Hennino A, Vocanson M, Toussaint Y, Rodet K, Benetière J, Schmitt AM et al. Skin-infiltrating CD8+ T cells initiate atopic dermatitis lesions. *J Immunol* 2007;**178**:5571–5577.