

Allergy to topical and oral goat products

TO THE EDITOR: A woman was assessed after an episode of goat cheese anaphylaxis. She had been using goat milk soap (various brands) to treat dry skin and mild eczema since 2009. In 2010, she experienced itchy mouth while eating goat cheese, and later in the year, she had contact urticaria after applying goat milk moisturiser (use discontinued). In early 2011, she developed tongue and throat swelling after eating goat and sheep cheese. Similar symptoms developed in late 2011 after she ate fetta cheese (animal origin uncertain). In early 2012, she experienced generalised urticaria, upper airway angioedema, bronchospasm and confusion after

she accidentally ate goat cheese, requiring treatment with adrenaline. Although she tolerated dairy products, the results of skinprick testing were positive for cows milk (8 mm weal), as well as for 10% weight/volume freshly prepared extracts in saline of goat cheese (8 mm weal), sheep fetta (7 mm weal), cow ricotta cheese (3 mm weal) and goat milk soap (4 mm weal), in the context of appropriate control substances (saline solution used as a negative control; 10 mg/mL histamine solution used as a positive control).

The major allergens in mammalian milk are casein and whey proteins (beta-lactoglobulin, alpha-lactalbumin, bovine serum albumin and bovine immunoglobulin).¹ Immunological and clinical cross-reactivity between different animal milks form the basis of advice to avoid other animal milks if hypersensitivity develops to milk from one species.¹ Nonetheless, selective hypersensitivity to goat and sheep milk products (with dairy tolerance) has been described.² This is characterised by immunoglobulin E (IgE) directed against species-specific epitopes on casein proteins.²

The principles of management of atopic eczema are the use of soap-free skin cleansers, frequent use of emollients and the use of anti-inflammatory medication until inflammation settles.³ Unfortunately, goat milk soap has the potential (as does any soap) to aggravate the dryness of a non-intact skin barrier. Of specific interest, however, is whether topical exposure to food allergen in goat milk products may have sensitised the patient to later oral ingestion, consistent with evidence of sufficient quantities (at least in some products) to result in a positive skin prick test to goat milk soap and contact urticaria on one occasion. While association is not equivalent to causation, precedents for occupational and other topical exposures as risk factors for systemic allergic reactions to food are well described,⁴⁻⁶ and underpin the prudence of using non-food emollients for eczema control.

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