

Allergic contact dermatitis to hydrolyzed wheat protein in a cosmetic cream

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Hydrolyzed wheat protein is used as an additive in several cosmetic products. We present a case of contact allergy to hydrolyzed wheat protein found in a cosmetic cream and highlight this additive is a potential allergen.

Key words: additive; allergic contact dermatitis; conditioner; cosmetic; hydrolyzed wheat protein.

Case Report

A 42-year-old, nonatopic, woman described intense burning over her face, neck, and scalp several hours after applying a new moisturizing cosmetic cream. She developed a florid, itchy rash over her face and neck, which lasted several weeks, settling with the use of topical steroids. She denied any previous skin problems.

Patch testing to the standard, cosmetic, hairdressing, and facial series was negative. Testing with her own cosmetic creams showed a positive (D2+, D4+) reaction to the 'gel pour le col' Gatineau® cream that she believed had caused her adverse reaction. Further patch tests to the diluted constituents of the cosmetic 'neck cream', kindly supplied by the manufacturer, identified an isolated allergy to hydrolyzed wheat protein 50% aqueous (D2+, D4+).

Skin prick testing to a standardized wheat extract and contact urticaria testing to the hydrolyzed wheat protein were negative.

Patch tests with hydrolyzed wheat protein 50% aqueous, in 20 consecutive control patients, were negative.

Discussion

To our knowledge, there have only been 2 previous reports of allergy to hydrolyzed wheat protein. The first describes contact urticaria to hydrolyzed wheat protein in a hair conditioner (1), in the absence of type 4 allergy. The second describes a similar case to ours of allergic contact dermatitis to hydrolyzed wheat protein in a cosmetic cream (2). In this case, the wheat protein was tested at a concentration of 10% aqueous.

Hydrolyzed wheat protein is an additive used in cosmetics as a skin and hair conditioner or film former. It can be found in eye make up preparations, bath soaps, detergents, hair sprays, nail polishes, and cleansing lotions (3).

This is only the second report of allergic contact dermatitis to this protein. We highlight hydrolyzed wheat protein as a potential allergen.

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