

Key words: allergic contact dermatitis; carboxymethylcellulose; Comfeel® hydrocolloid dressing.

Patients with leg ulcers often become sensitized to constituents of the treatments used on their wounds, such as antibiotics, antiseptics, preservatives, emulsifying agents, dressings, etc. Various studies have shown that more than 60% of patients with chronic leg ulcers are sensitized to at least one allergen (1–4).

Hydrocolloid dressings have been used for more than 15 years and are usually well tolerated. Occasional allergic contact dermatitis has been reported to pentaerythritol ester of hydrogenated rosin, a sensitizing colophonium derivative (5–7) found in Varihesive E® (Convatec; Princeton, NJ, USA, marketed as Granuflex® in the UK and Duoderm® in the USA). However, sensitization to Comfeel® hydrocolloid dressing has only rarely been reported (8, 9), and it has not been clear in the previous reports which constituent of the dressing was relevant.

Case Report

A 77-year-old lady with chronic leg ulcers developed dermatitis on the skin surrounding the ulcer. Patch tests were performed in order to identify possible sensitizing agents: the European baseline series (Hermal Trolab, Reinbek, Germany), preservatives series, emulsifiers series, and leg ulcers series. Readings were made on day 4 with the following results: fragrance mix 1, +++; fragrance mix 2, +, nickel sulfate +, Myroxyton pereirae +, colophonium +, sorbitan sesquioleate ++, sorbitan monooleate ++, Varihesive E® +++, Comfeel® +++, Adaptic® ++, and Aquacel® +. Constituents of Comfeel® were provided by Coloplast AG, Rotkreuz, Switzerland, and supplementary patch tests with individual components showed an allergic reaction to the carboxymethylcellulose (10%) constituent (++) . 10 controls showed no reaction to the carboxymethylcellulose 10%.

Allergic contact dermatitis to carboxymethylcellulose in Comfeel® hydrocolloid dressing

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Discussion

Allergic contact dermatitis to Comfeel® hydrocolloid dressing has, to our knowledge, only rarely been reported.

In previous reports, testing with isolated constituents did not show any positive reaction (8, 9). In our case, it was possible to relate the allergy to carboxymethylcellulose sensitization, which seems to be quite rare. A baker with chronic hand dermatitis has been reported to be sensitized to carboxymethylcellulose, used to increase the viscosity in cakes (10). In hydrocolloid dressings, carboxymethylcellulose constitutes most of the absorbing water matrix.

Contact urticaria syndrome to carboxymethylcellulose within the Comfeel® hydrocolloid dressing has been reported (11) as well as various immediate-type reactions to carboxymethylcellulose present in injectable corticosteroids (12, 13).

In the case of our patient, the sensitization to Varihesive E® (+) could be related to both the colophonium sensitivity (+), as previously mentioned, and to the important sensitization to carboxymethylcellulose (++). Finally, sensitivity to carboxymethylcellulose could also have contributed to the slight reaction (+) to Aquacel® as it is also present within this dressing.

In conclusion, we report a rare case of sensitization to carboxymethylcellulose in the Comfeel® hydrocolloid

dressing, a dressing which is generally very well tolerated by most patients.

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