

Irritant contact dermatitis caused by Savoy cabbage

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doi:10.1111/cod.12484

Key words: contact dermatitis; cruciferous plants; herbal remedies; phytodermatitis; case report.

Several plant families are known to contain chemical irritants that are capable of inducing dermatitis after skin contact (1). We report a case of irritant contact dermatitis caused by Savoy cabbage, applied on the skin as a 'natural treatment'.

Case History

A 50-year-old patient was admitted to our outpatient clinic with a painful 'burn' injury. Initially, he had applied fresh leaves of Savoy cabbage under occlusion on his lower leg to reduce joint pain. After 4 h, he had removed the occlusive cloth because of pain and a burning sensation. On the following day, a vesicular eruption on erythematous and oedematous skin was observed (Fig. 1). Wet dressings, topical antibiotics and oral antibiotics resolved the lesion within 1 month. Thereafter, the patient was patch tested with the Italian Society of Allergological, Occupational and Environmental Dermatology (SIDAPA) baseline series, (FIRMA, Florence, Italy), without any positive reactions, including to sesquiterpene lactone mix



Fig. 1. Bullous lesions on the leg.

0.1% and Compositae mix 5%. Patch tests were applied with Van der Bend® Square Chambers (Van der Bend, Brielle, The Netherlands), and readings were performed on day (D)2 and D4. Prick tests with cabbage allergen extracts gave negative results. The vegetable provided by the patient was identified as *Brassica oleracea* var. *sabauda* L.

Discussion

Our case can be considered as an irritant reaction caused by isothiocyanates contained in cruciferous plants of the *Brassica* genus. Isothiocyanates are the principal irritant

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Conflict of interest: The authors declare no affiliation with or significant financial involvement in any organizations or entity with a direct financial interest in the subject matter or materials discussed in this article.

constituents of the mustard oils, and react with the amino groups of proteins on human skin, causing immediate and short-lived burning, erythema, and urticaria (1). It has not been possible to rule out sensitization to isothiocyanates, as our patient declined further patch testing. To our knowledge, this is the first report of irritant contact dermatitis caused by *B. oleracea* var. *sabauda* L. applied on the skin as a self-remedy. A systematic review investigating the safety of cruciferous plants showed a previous case of toxic irritative dermatitis in an individual who applied a

home-made wrap containing ground mustard seeds and water, in order to relieve the symptoms of bronchitis (2).

Vegetables of the family Brassicaceae are widely cultivated as food, and some members of this plant family are claimed to be effective in various diseases (2). Little is known about the possible side-effects of such alternative medicines, which are increasing in popularity (3). Dermatologists can help to collect evidence on adverse effects induced by plants, and the risks associated with alternative medicine.

References

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