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Immunological contact urticaria caused by a silk shirt in an atopic patient

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Although silk is a well-known allergen causing type I allergic diseases, contact urticaria caused by silk clothing has only rarely been reported, but might be a more frequent finding in atopic subjects.

Case Report

This concerns a 49-year-old patient with severe atopic dermatitis since childhood and a history of allergy to house dust mites, grass and rye pollen, cats, dogs, horses, and natural rubber latex. There was a family history of atopic eczema and asthma.

The patient presented to us with exacerbation of eczema on her hands and wrists following her return to Belgium after having spent holidays in a warmer climate, during which she had noticed substantial improvement of her eczema. Her treatment consisted of a moisturizer and tacrolimus 0.1% applied twice a week.

Coincidentally, during the consultation, urticarial papules emerged on the flexor aspects of both forearms, and she suddenly recalled that, in the morning, the same type of lesions had appeared on both arms when she was wearing the same silk shirt, but had quickly disappeared after she had taken it off. However, in order to visit us, she had put on the same silk shirt again without knowing that this could have been the cause of her skin eruption.

In addition to the urticarial wheals on both forearms (Fig. 1), examination showed eczematous lesions on the backs of the hands, fingers, wrists, and elbow creases, as well as lichenification of the right wrist.



Fig. 1. Immunological contact urticaria caused by a silk shirt.

We performed radioallergosorbent (RAST) tests, which gave positive results for silk waste (k73) 2.08 Ua/ml and natural silk (k74) 3.62 Ua/ml. The total IgE count was > 5000 kU/l.

Hence, the diagnosis of immunological contact urticaria caused by silk was confirmed, and we advised the patient to avoid all contact with this material in the future.

Discussion

Silk is a well-known allergen causing type I allergic diseases such as asthma, hypersensitivity pneumonitis, and nasal allergy (e.g. 1). There was a case of recurrent granulomas with marked eosinophil infiltration that may have resulted from an IgE-mediated hypersensitivity reaction to silk fibroin, a component of a braided silk suture (2), but there are only a few reported cases (3–5) of contact urticaria or the contact urticaria syndrome (3) following skin contact with silk clothing (3–5). The nature of the different allergenic culprits in silk has recently been discussed (3).

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In our patient, both the clinical picture and the positive RAST test results suggest immunological contact urticaria caused by silk. Its role in aggravating the condition of atopic patients (including flareup of eczema,

rhinitis, asthma, and urticaria) was already reported in the 1930s (cf. 6), and hence should be taken into account when its use is advised in such patients (3).

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