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Contact dermatitis from *Hedera helix* in a husband and wife

P. D. Yesudian[1] and A. Franks[2]

[1]Department of Dermatology, Royal Liverpool University Hospital, Prescott Street, Liverpool L7 8XP and [2]Department of Dermatology, Countess of Chester Hospital, Liverpool Road, Chester CH2 1UL, UK

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Common ivy is an ornamental plant commonly grown in gardens as a climber. It causes irritant and allergic contact dermatitis especially when it is pruned in the spring (1). Contact allergy is unusual considering the popularity and prevalence of the plant in the UK (2).

Case Report

A previously healthy 50-year-old man was admitted in April 1999 with severe eczema on the right upper limb and less florid involvement of the trunk. His wife had simultaneously developed eczema on her trunk. 10 days prior to onset, the patient had scratched his right arm while cutting roses. He subsequently spent time pruning common ivy and his wife helped him to clear the trimmings. 4 days later, the patient's right arm became itchy and exudative at the site of the scratch. In Accident and Emergency (A & E) a diagnosis of cellulitis was made, for which only oral antibiotics (penicillin and flucloxacillin) were prescribed. The patient felt well in himself and, 3 days prior to admission, completed pruning the ivy plant. He wore the same clothes, which had not been washed, and his wife again assisted in clearing the trimmings. Over the next 3 days, both husband and wife developed the extensive eczema with which they were seen. Their son had shown a less severe reaction to ivy 3 years earlier.

On examination, an acute eczema with confluent erythematous vesicular and bullous lesions was noted on the right forearm (Fig. 1), with less severe patchy involvement of the trunk. A linear streak of small vesicles was seen on the dorsum of the right hand. His wife showed less florid vesicular erythematous plaques on the forearm and trunk (Fig. 2). The distribution of the rash and preceding history suggested a diagnosis of allergic phytodermatitis from common ivy. Routine haematological and biochemical tests were normal and blood cultures were negative. He was treated with potassium permanganate soaks and Betnovate C® ointment (betamethasone valerate with clioquinol), with intravenous flucloxacillin and benzyl penicillin to control secondary infection. Once the crusting and secondary infection settled, topical Dermovate® (clobetasol propionate) was started. The eczema settled completely on this regimen and antibiotics were stopped in 5 days. He was weaned off topical corticosteroids over the next 2 weeks. The patient and his wife refused patch testing in view of the severity of the phytodermatitis that they had experienced. They identified common ivy (*Hedera helix*) as the causative plant from a poster in A & E.

Comment

Hedera helix is a popular decorative plant that can cause dermatitis not only from its leaves but also from its

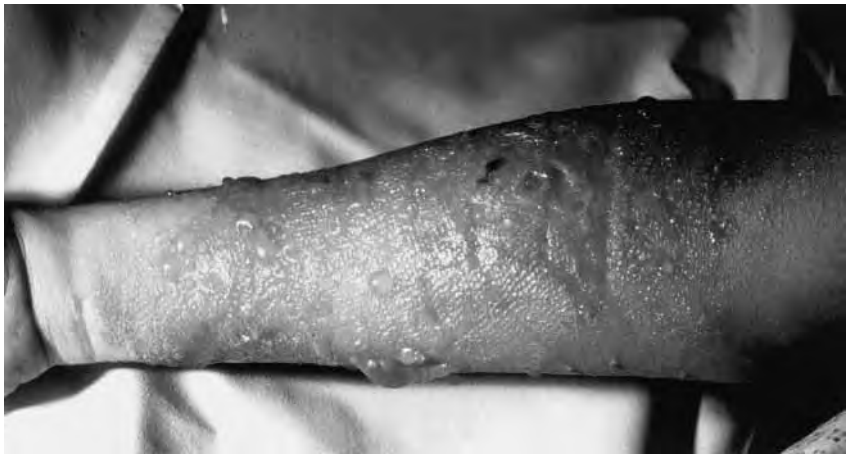

Fig. 1. Severe erythematous vesiculobullous eruption on the right forearm.

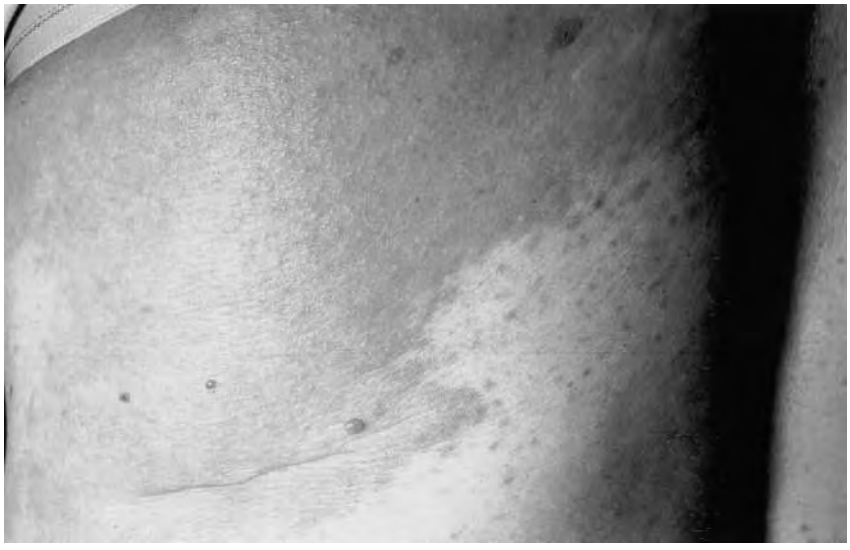

Fig. 2. Patient's wife showing a less florid rash on her back.

roots (3). It is reported to have antimicrobial properties and is used therapeutically in a variety of ointments, hair lotions, teas and expectorants. Common ivy contains 2 polyacetylene compounds, falcarinol and didehydrofalcarinol, which are powerful irritants and moderate sensitizers (4). Falcarinol may be present in anticellulite creams and gels in minimal concentrations. The plant parts of *Hedera* must be bruised to release the allergenic sap containing these chemicals (5). The dual exposure to pruned common ivy and preceding trauma from rose thorns resulted in an unusually severe contact eczema in our patient, its onset a few days after initial exposure suggesting allergic rather than irritant contact dermatitis. The typical picture of *Hedera* dermatitis is a linear and vesicular eczema (6). It occurs mainly in spring when ivy grows rapidly and is pruned (5). The allergen concentration of *Hedera* in its stem and roots is also high at this time. Allergic contact dermatitis on the hands and forearms of a gardener, similar to our case, has been recorded in the past (6). However, there are no previous reports of its conjugal occurrence.

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Address:
A. Franks
Department of Dermatology
Countess of Chester Hospital
Chester CH2 1UL UK.
Tel: +44 124 4366431.
Fax: +44 124 4366229.