

matitis was aggravated by the use of rosin on his squash racquet handle. He had a known Rhus allergy, and his father and paternal uncle (twins) were allergic to adhesive plaster.

Patch tests to the ICDRG series and also to rosin powder were applied. Strongly positive reactions to both colophony and rosin powder were present at 96 hours.

The patient suggested, as an explanation for his neck involvement, the recent pre-wash use of a pressure-pack grease and dirt remover, Preen®, on his shirt collars. Preen is labelled as containing 40 % 1,1,1-trichloro-ethane, but when challenged, the manufacturers admitted that this product did, in fact, also contain colophony.

Sensitization to tropical woods giving erythema multiforme-like eruptions

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Three cases of allergic contact dermatitis from tropical woods (Rio rosewood, Pao Ferro, *Eucalyptus saligna*) are described. The dermatitis started 1-2 weeks after exposure to the materials and developed into erythema multiforme-like eruptions. In one of the patients the histology resembled toxic necrolysis. All three patients had strongly positive patch tests to the woods used.

We have recently observed three carpenters who after working for a short time with tropical woods, Rio rosewood (*Dalbergia nigra*), Pao Ferro (*Mackerrum scleroxylon*) and *Eucalyptus saligna*, developed erythema multiforme-like eruptions. All of them were otherwise healthy and were not taking any drugs. Case 1, however, had an earlier history of stasis dermatitis.

Case 1 (Malmö)

The patient, a male, 65 years of age, had been working for about 1 week with Rio rosewood veneer. Within a day he developed a rash on the face, arms and upper trunk. He had been working with his upper trunk naked. He also had a fever of 39.5°C. The skin eruption was maculopapular, but vesicles and small bullae were present on the wrists. The clinical picture was similar to a drug eruption. Despite treatment with betamethasone orally and locally, the skin eruption worsened and the rash spread to the groin and thighs, with the development of large bullae on the hands, arms and trunk. The eruption only slowly subsided on

treatment with betamethasone up to 9 mg daily. He was able to leave the hospital after 14 days.

Histology. A biopsy was taken from inflamed skin close to a bulla. It showed a total necrolysis of the epidermis and only a mild perivascular infiltrate; that is a picture resembling toxic necrolysis (Lyell 1967).

Patch tests. One month after the dermatitis had healed the patient was tested with the Rio rosewood (dry sawdust) and the ICDRG standard series. There was a strong positive response to the sawdust. It gave negative reactions in controls. A weak reaction was found to caine-mix, which could probably be explained from earlier treatment of his stasis dermatitis with benzocaine-containing ointments.

Case 2 (Malmö)

A male, 65 years of age, also developed an intense vesicular dermatitis on the face and arms after working for about 1 week with a tropical wood, Pao Ferro. After treatment with oral and topical corticosteroids for a week the dermatitis had nearly healed, but he then sustained a relapse with spreading of the eruption to the trunk and the thighs. The clinical picture had now changed to rounded, smooth ("subepidermal"), slightly infiltrated plaques of erythema multiforme type. After a further week's treatment with corticosteroids the skin lesions subsided.

Histology. A biopsy taken from the erythema

multiforme-like eruptions showed a normal epidermis but an intense dermal oedema with perivascular infiltrate consisting of lymphocytes and histiocytes. The pathologist's diagnosis was toxic erythema or erythema multiforme.

Patch tests. The patient was tested with dry sawdust of the various tropical woods he had been working with during the time before his dermatitis. Test results were: Pao Ferro +++ , Japanese Oak + , Teak negative. ICDRG standard series: negative.

Case 3 (London)

The patient was a man of 36 who was a framemaker in an upholstery work. A new wood, identified as a eucalyptus species, probably *saligna*, had been used in this workshop for 2 weeks prior to the onset of his skin eruption. The wood had been machined 48 h prior to the onset of a rash that began with irritation around his lower lip. Itching and discomfort then occurred on his wrists, ankles and around his waistband.

On examination, large bullae were found on his palms, ankles and feet. Over his wrists and around his ankles there was a zone of erythema corresponding with the penetration of dust trapped in clothing. The eruption resembled erythema multiforme. A biopsy was not taken.

The patient's skin cleared completely within 3 weeks following the use of potent topical steroids and a single dose of an ACTH depot preparation.

Patch tests to the wood dust produced a positive reaction +++ at 48 h and 96 h.

Discussion

The antigen of Pao Ferro (iron wood tree of Brazil) is R-3,4-dimethoxy-dalbergione and the antigen of Rio rosewood is R-4-methoxy-dalbergione. They are both quinones and closely related.

Despite much effort, we are unable to discover within the eucalyptus species known sensitizers such as the quinones which are present in Rio rosewood and Pao Ferro.

There are several reports of toxic erythemas (drug-reaction-like skin eruptions) related to

contact sensitivity. One example is the dermatitis related to an allergenic contaminant of dishwashing agents containing alkyl ether sulphates (Magnusson & Gilje 1973). It has also been reported after exposure to primula (Hjorth 1966), benzene compounds (Björnberg & Mobacken 1972) and a phenylsulphone derivative (Roed-Petersen 1975). A somewhat related complication concerns those cases of contact allergy with anaphylactic reactions observed in atopic patients. In one of these patients circulating antibodies directed against the eliciting agent were found (Roupe & Strannegaard 1969). We have not, however, seen any reports of erythema multiforme-like reactions connected with contact allergy to wood.

We suppose that in our cases the antigen was absorbed or perhaps inhaled, causing not only a type-IV allergic reaction but also bringing about a type-III reaction by the formation of circulating antigen-antibody-complexes.

Patient 1, who developed a skin eruption resembling toxic necrolysis, is then considered to have had a form of "maximal erythema multiforme". It is indeed surprising that in this case contact with a wood started a very serious, life-threatening disease, which required systemic therapy of 9 mg betamethasone daily for its control.

References

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