

LETTER

Archer dermatitis: a new case of allergic contact dermatitis

Dear Editor,

A 58-year-old man reported a 2-year history of linear eczema on the left hand, which was treated with topical emollients and corticosteroids with only temporary resolution. We performed a cutaneous biopsy, and histological examination showed the features of allergic contact dermatitis. The patient was tested with the Italian Society of Dermatology and Allergology Environmental Professional (SIDAPA) standard series of patch tests, which resulted in mild positive to Balsam of Peru. The personal history of the patient revealed no significant factors except for the fact that he was a bowman and enlisted in Financial Police, practicing competitive archery.

We decided to carry out another patch test with a special professional series for archery made by FIRMA (usnic acid 1%, wood tar mix 12%, 5% pine oil, turpentine 20%, turpentine peroxides 0.3%, 10% creosote, beeswax 30%, urea formaldehyde resin 10%, phenol formaldehyde resin 5%, δ -3-carene, α pinene 15% olive oil, dammar resin 20%, sesquiterpene lactone mix 0.1%, colophony 20%, balsam of Peru 25%, formaldehyde 1% water, 0.5% potassium dichromate, epoxy resin 1%, p tert-butylphenol formaldehyde 1%), with a positive reaction (+) for wood tar mix 12% at 48 and 72 h, like another case we

described.¹ In order to further investigate the haptens present in wood tar mix, we employed another FIRMA professional special series for wood tar mix (phenol 0.5%, m-cresol 2%, creosote 10%, pyrocatechol 2%, α -pinene 15%, S-limonene 2%, R-limonene 2%, sesquiterpene lactone mix 0.1%, diptene 1% acetone). The patient showed a positive (+ +) reaction to R-limonene 2% at 48 and 72 h.

The patient was therefore treated with steroid and emollient topical therapy with clinical resolution of the eczematous lesions.

Limonene is an ubiquitous allergen in our environment. Limonene is increasingly being used as a solvent for cleaning purposes, such as the removal of oil from machine parts, as it is produced from a renewable source (citrus oil, as a byproduct of orange juice manufacture). It also serves as a paint stripper when applied to painted wood, and is also useful as a fragrant alternative to turpentine.^{1–3}

It is one of the most common terpenes in nature. Terpenes are naturally occurring substances produced by a wide variety of plants and animals, and it is a component of wood tar.⁴

The arc used by our patient is made by painted wood components treated with paint stripper containing limonene. For this, in our opinion, the contact dermatitis developed by patient the was dependent of his contact with the arc.

We report this case because occupational dermatitis is difficult to diagnose and has an important economic impact,

and to highlight the importance of limonene as an emerging occupational allergen.

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