



Figure 1. Examples of several wood species and plants that are known to contain SLs. The characteristic tulip-shaped green-yellow flowers of *L. tulipifera* and the white flowers of *Magnolia grandiflora* trees are shown at the upper left and right, respectively. The foliage and flowers of *L. nobilis* are displayed at the bottom left, whereas the liverwort *Frullania dilatata* is shown at the bottom right.

Butylhydroxytoluene—From Jet Fuels to Cosmetics?

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PRECÍS

We present a case of allergic contact dermatitis from butylhydroxytoluene in a former military engineer who worked with aviation fuel during his enlistment.

DISCUSSION

A patient with a 1.5-year history of recalcitrant hand dermatitis, presented to the VA Medical Center contact dermatitis clinic.

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The authors have no funding or conflicts of interest to declare. The views expressed in this article are those of the authors and do not reflect the official policy or position of the Department of the Navy, Department of Defense, or the United States Government.

DOI: 10.1097/DER.0b013e31824a5e80

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The dermatitis had started on both his dorsal feet and hands, spreading to affect the whole body, within 1 week of daily using Up and Up over-the-counter antifungal liquid spray containing tolnaftate 1% to self-treat presumed tinea pedis. Initially, the patient had been treated in urgent care with a prednisone taper. He promptly ceased using the spray, but his hand dermatitis persisted and worsened, despite the use of high-potency topical steroids (eg, clobetasol; Fig. 1).

When he arrived for consultation, he brought his personal hygiene products, along with the antifungal spray can. Given his history of jet fuel exposure, butylhydroxytoluene (BHT) was questioned as the causative allergen in the fungal spray. Butylhydroxytoluene was also present in his deodorant (Degree Invisible Stick) and shave gel (Nivea For Men – Sensitive). Patch testing demonstrated a 2+ reaction to BHT as well as a 1+ reaction to both the deodorant and antifungal spray. Avoidance of products containing BHT was recommended, and the patient's hand dermatitis eventually resolved.

Our patient had reported a near daily handling of F-76 and JP-5 aviation fuels, both of which can contain BHT,^{1,2} often without personal protective equipment while on active duty. Butylhydroxytoluene, or 2,6-di-*tert*-butyl-4-methylphenol, is a common antioxidant in a wide range of products from cosmetics to jet fuel (JP-4, JP-5, JP-8, Jet A, F-76).¹⁻³ Fuel samples are transported, analyzed, and used on a daily basis to keep military operations running smoothly; this transport often occurs without gloves or other personal protective equipment when performing routine checks.



Figure 1. Hand dermatitis.

Contact with fuels is just one source of exposure to BHT, as this patient demonstrates. In a recent study in Denmark analyzing preservatives in registered chemical products, the total number of products containing BHT was found to increase from 2002 to 2005.⁴ We believe this patient may have potentially become sensitized to BHT from jet fuel exposure. On reexposure to BHT in his personal hygiene products, including the antifungal spray, he developed foot and recalcitrant hand dermatitis.

PEARL

This case highlights the importance of using personal protective equipment when handling jet fuels to avoid sensitization to chemicals also contained in personal hygiene products.

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Contact Dermatitis Following Exposure to Bird Excrement

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PRECÍS

Through this case, we present an extremely rare dermatologic consequence of circumstance, which has never before been published.

DISCUSSION

A 48-year-old man presented to the dermatology clinic with complaints of a severely pruritic rash on his right upper extremity. Three days prior, the patient had been outdoors at an air show near Miami, Fla, when a flock of monk parakeets flew overhead and dropped a substantial amount of excrement on his bare arm. The patient quickly rinsed the excrement off and resumed his activities. Within 24 hours, however, he reported the development of “red-hot itchy pimples” in the distribution where the excrement had made contact with his arm and had been rinsed off. He attempted to treat the rash with various over-the-counter remedies with no relief. Of note, the patient denied recent exposure of the affected area to other possible contactants but did endorse a remote history of poison ivy dermatitis as a Boy Scout.

On physical examination, a deeply erythematous hemorrhagic papulovesicular rash was noted on the patient’s right lateral arm and forearm in a linear, nondermatomal distribution (Fig. 1). A punch biopsy of the involved skin revealed a superficial perivascular infiltrate of lymphocytes with focal areas of spongiotic vesiculation in the epidermis. Profound dermal edema created a subepidermal blister filled with extravasated erythrocytes and many eosinophils. Based on these findings, a diagnosis of allergic contact dermatitis was made. The patient was treated with fluocinonide 0.05% ointment applied to the rash twice daily for

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The authors have no funding or conflicts of interest to declare.

DOI: 10.1097/DER.0b013e31823d1a18

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