

CONTACT POINTS

CONTACT DERMATITIS 2007; 57: 381–388

• COPYRIGHT © BLACKWELL MUNKSGAARD 2007

• ALL RIGHTS RESERVED

• CONTRIBUTIONS TO THIS SECTION WILL NOT UNDERGO PEER REVIEW, BUT WILL BE REVIEWED BY THE EDITOR •

Photoallergic contact dermatitis from lavender oil in topical ketoprofen

Contact Dermatitis 2007; 57: 381–382

Rebeca Goiriz, Yolanda Delgado-Jiménez,
Javier Sánchez-Pérez and Amaro García-Diez

Department of Dermatology,
Hospital Universitario de La Princesa,
C/Diego de León 62, 28006 Madrid, Spain

Key words: Fastum® gel; fragrance; lavender oil; non-steroidal anti-inflammatory drugs; photoallergic contact dermatitis.

Fastum® gel, a topical, non-steroidal, anti-inflammatory drug, has been reported as a contact and photocontact allergen on many occasions, which is because of its active compound, ketoprofen (1). Lavender oil is one of its excipients and has been reported before as a contact allergen in aromatherapists (2–4), but this is the first case in which the lavender oil has been responsible for a photoallergic contact dermatitis in a Fastum® gel user.

Case Report

A 45-year-old woman presented in the summertime with an erythematous, itching plaque of 2-week duration located on the back of her left foot, spreading to her left leg. 2 weeks before the appearance of the lesions, the patient had applied in such location Fastum® gel (ketoprofen) twice daily for 7 days. Oral and topical corticoids were administered, with resolution of the lesions in few weeks.

Patch testing with the Spanish standard series, anti-inflammatory series, and patch and photopatch testing with Fastum® gel and its components were performed in duplicate. 1 set of test was irradiated in D2 with 10 J/cm² of ultraviolet A (UVA). Readings were carried out on D2, D4, and D7.

Patch test showed a 2+ reaction at D2 and D4 to Fastum® gel and to ketoprofen 1% pet. Photopatch was positive to lavender oil 2% pet. at D4 and D7 (Fig. 1). These results suggested a photoallergic contact dermatitis to lavender oil, with a contact dermatitis to ketoprofen. 10 control photopatch tests with lavender oil 2% pet. were performed with negative results.

Discussion

Lavender oil is a well-known occupational contact allergen among aromatherapists (2–4) and less often among hairdressers (5). It is added to multiple cosmetics, toilettes, and perfumes. Sugiura et al. reported the result of patch testing with lavender oil 20% pet. on patients who were suspected of having a cosmetic contact dermatitis for a 9-year period. They found a positivity rate of 3.7%, being the highest of the fragrances tested and showing a progressive increase in relation with the fashion for aromatherapy (6).

Lavender oil is also the excipient of some common topical medications, including anti-inflammatories (1). Several cases of contact allergy from topical medicaments have been reviewed (6). A case of contact dermatitis to lavender oil, excipient of Diffiam® gel, was described in a

36-year-old physiotherapist with a history of episodes of acute facial dermatitis. Patch testing was positive to lavender absolute 2% pet. (7).

To our knowledge, our study is the first case of photoallergic contact dermatitis because of lavender oil in Fastum® gel. In our patient, a contact dermatitis to ketoprofen coexists with a photocontact dermatitis to lavender oil, which could be as a result of cross-reaction between the ketonic group of the ketoprofen and the cinnamic aldehyde of the perfume (8). Positive patch and photopatch testing to lavender oil 5% in alcohol were reported before in patients with Fastum® gel dermatitis, but irritant reactions because of the ethanolic dilutions could not be ruled out (1). The concentration and the vehicle for patch testing with lavender oil are not standardized, being positive in our case at 2% in pet.

References

1. Matthieu L, Meuleman L, Van Hecke E, Blondeel A, Dezfoulan B, Constandt L, Goossens A. Contact and photocontact allergy to ketoprofen. The Belgian experience. *Contact Dermatitis* 2004; 50: 238–241.
2. Selvaag E, Holm J-O, Thune P. Allergic contact dermatitis in an aromatherapist with multiple sensitizations

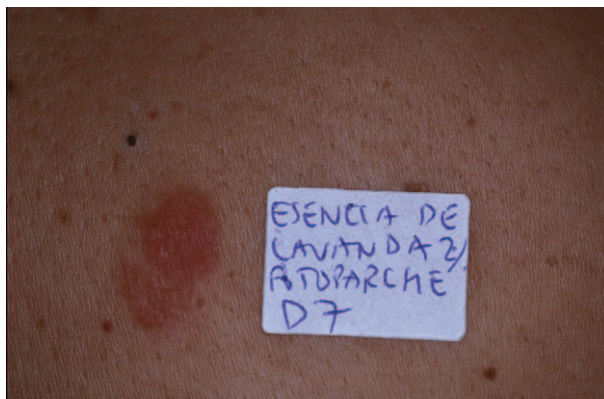


Fig. 1. Positive reaction to lavender oil 2% pet. at day 7 of photopatch testing.

- to essential oils. *Contact Dermatitis* 1995; 33: 354–355.
3. Weiss R R, James W D. Allergic contact dermatitis from aromatherapy. *Am J Contact Dermat* 1997; 4: 250–251.
 4. Keane F M, Smith H R, White I R, Rycroft J G. Occupational allergic contact dermatitis in two aromatherapists. *Contact Dermatitis* 2000; 43: 49–50.
 5. Brandao F M. Occupational allergy to lavender oil. *Contact Dermatitis* 1986; 15: 249–250.
 6. Sugiura M, Hayakawa R, Kato Y, Sugiura K, Hashimoto R. Results of patch testing with lavender oil in Japan. *Contact Dermatitis* 2000; 43: 157–160.
 7. Rademaker M. Allergic contact dermatitis from lavender fragrance in Diffiam[®] gel. *Contact Dermatitis* 1994; 31: 58.
 8. Pigatto P, Bigardi A, Legori A, Valsecchi R, Picardo M. Cross-reactions in patch testing and photopatch testing with ketoprofen, thiaprophenic acid and cinnamic aldehyde. *Am J Contact Dermat* 1996; 7: 220–223.

Address:

Rebeca Goiriz
Department of Dermatology
Hospital Universitario de La Princesa
C/Diego de León 62
28006 Madrid
Spain
Tel: +34915 202 433
Fax: +34915 202 435
e-mail: rgoiriz@yahoo.es