

## Case report

# Allergic contact dermatitis from naftifine in a child without cross-reaction to terbinafine

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## Abstract

Allergic contact dermatitis from naftifine has been scarcely described in the English literature, all of them in adults. We report a case of a 12-year-old girl who developed an acute eczema on her neck after application of a naftifine cream. This fact was confirmed by a patch-test study. We did not find a cross-reaction to terbinafine, a structurally linked allylamine. © 1998 Elsevier Science B.V. All rights reserved

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## 1. Introduction

Cases of allergic contact dermatitis due to the use of new antifungal derivatives such as allylamines are now being published. We present a new case of allergic contact dermatitis to naftifine, which has been rarely reported in the English literature.

## 2. Case report

A 12-year-old girl, without significant medical antecedents, consulted her family doctor for slightly pruriginous, erythematous-desquamative patches on both lateral aspects of her neck that she had presented

for several days. The process was diagnosed by her family doctor as tinea corporis and it was treated with a daily application of Micosona® cream (naftifine 1%). After 1 week the process worsened, developing an acute eczematous picture, with very pruriginous vesicular and exudative lesions at 3 weeks. The lesions were impetiginized and extended to both cheeks (Fig. 1). Micosona cream was stopped, and a treatment with local and oral corticosteroids were needed to improve the process.

An allergic contact dermatitis was suspected and epicutaneous study with GEIDC standard series and Micosona cream as is was performed. Al test® and Mefix® were used as support. The patch tests were read at 2 and 4 days according to the ICDRG criteria. A positive patch test to Micosona cream as is was found. Afterwards, patch tests with naftifine hydrochloride (pure substance) and the other constituents of the cream (benzyl alcohol, Cutina CP-A, stearyl

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alcohol, sorbitan estearate, isopropyl myristate, Tween 60) were performed, and a positive reaction to naftifine 1% and 5% in ethanol was obtained (Fig. 2). Micosona cream and naftifine 1% and 5% in ethanol were patch-tested in 15 healthy controls with negative results. Finally, a patch test with Lamisil® cream, of which the active constituent is terbinafine at 1%, was performed with a negative result.

### 3. Discussion

Naftifine, an antifungal of the allylamine group, has antimycotic, antibiotic and anti-inflammatory activity. Occasionally erythema, burning and dryness have been described after local application of naftifine



Fig. 1. Eczematous reaction with impetiginization on the right side of the neck.



Fig. 2. Positive patch test to naftifine 1% et. at 96 h.

[1]. Nevertheless, to date, few cases of allergic contact dermatitis to naftifine have been published [2–9], and only three of them in the English literature [6,9]. In none of the cases published before has a study of cross-reaction with terbinafine been performed, in spite of the fact that both substances have a remarkable structural similarity. The cream marketed in Spain as Lamisil cream, whose active constituent is terbinafine, was tested by us with a negative result. Consequently, in our case it is possible to rule out the existence of cross-reaction between naftifine and terbinafine.

### References

- [1] Nolting S, Weidinger G. Naftifin bei schweren dermatomykosen. Kontrollierter wirkungsvergleich mit econazol. *Mykosen* 1985;28:69–76.
- [2] Kleinhans D. Kontaktallergien auf naftitin. 3 Fallbeobachtungen. *Dtsch Dermatol* 1986;34:1063–1068.
- [3] Hoting E, Kuchmeister B, Hausen BM. Kontaktallergie auf das antimykoticum naftitin. *Dermatosen* 1987;35:124–127.
- [4] Tholen S. Allergisches kontaktekzem auf naftitin. *Allergol* 1987;10:428.
- [5] Raulin Ch, Frosch PH. Kontaktallergien auf antimykotika. *Z Hautkr* 1987;62:1705–1709.
- [6] Senff H, Tholen S, Stieler W, Reinel D, Hausen BM. Allergic contact dermatitis to naftifine. *Dermatologica* 1989;178:107–108.
- [7] Merkel M, Gall H. Kontaktallergie auf naftifin. *Akt Dermatol* 1990;16:191–192.
- [8] Mehringer A, Hartman AA, Pevny I, Burg G. Fünf fälle einer kontaktallergie durch naftifin (Exoderil). *Akt Dermatol* 1990;16:193–195.
- [9] Willa-Craps C, Wyss M, Elsner P. Allergic contact dermatitis from naftifin. *Contact Dermatitis* 1995;32:369–370.