

Is terbinafine responsible for eliciting positive patch tests performed with Lamisil® tablets?

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Terbinafine (Lamisil®) is an antifungal drug that may be prescribed orally (250 mg) or topically (1%).

However, these in vitro tests performed with terbinafine and all other components of the tablet were also negative when tested separately.

Case Report

A 56-year-old woman development Stevens-Johnson syndrome 7 days after the initiation of oral Lamisil® (250 mg/day). At the onset of the Stevens-Johnson syndrome, she was also taking 17 β -estradiol. Hormonal therapy was reintroduced 3 months later without any relapse of the cutaneous adverse drug reaction. At the onset of the Stevens-Johnson syndrome, a transient transaminase elevation (3.5 $\times$ normal range) was observed without any recent positivity of viral serologies. The dermatosis disappeared 6 weeks following the application of topical betamethasone and the discontinuation of oral Lamisil®. No relapse was observed over the next 30 months.

Immunoallergological investigations were performed 3 months after the onset of the cutaneous adverse drug reaction. Patch tests were performed with: European standard series, Lamisil® tablet as is, Lamisil® cream as is, terbinafine pure and 30% pet., and the excipients of the tablet, magnesium stearate, carboxymethylcellulose, cellulose and silicate (Table 1). Similar results were obtained from patch tests performed 2 $\times$ at an interval of 3 months. Patch tests with Lamisil® tablet were positive (15 negative controls), but patch tests performed with terbinafine and all other components of the tablet were negative when tested separately. A human basophil degranulation test and a lymphocyte activation test (1) performed with Lamisil® tablet were both positive.

Discussion

Skin testing can be useful in the investigation of cutaneous adverse drug reactions (2). Previous patch testing with Lamisil® has been reported in 1 case of acute generalized exanthematous pustulosis (3) and in 1 case of erythema multiforme (4). Kempinaire et al. (3) observed a positive patch test, but it is not clear whether this was with Lamisil® tablet or pure terbinafine. Carstens et al. (4) reported a negative patch test with Lamisil® cream.

With extensive and 2 $\times$ controlled patch testing, we did not observed any positive reaction to terbinafine, at various concentrations and in different vehicles, or to any other component of the tablet when tested separately. It is therefore not possible to conclude that terbinafine is responsible for inducing cutaneous adverse drug reactions to oral Lamisil®. Different explanations could be given for the results that we have obtained: the cutaneous adverse reaction may have been induced by an unknown component of the tablet, or positive patch tests could be due to irritation or compound allergy (5).

References

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Table 1. Patch test results

	D2 and D4
PTBPF resin	+
remainder of European standard series	–
Lamisil® tablet as is	+
Lamisil® cream as is	–
terbinafine pp*	–
terbinafine 50% pet.	–
magnesium stearate pp*	–
magnesium stearate 10% pet.	–
carboxymethylcellulose pp*	–
cellulose pp*	–
silicate pp*	–
17 beta estradiol 30% pet.	–

* Provided by Novartis Laboratories. pp=pure powder.