

Fluconazole-induced fixed drug eruption confirmed by extemporaneous patch testing

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The triazole antifungal drug fluconazole is frequently used for treating vulvovaginal candidiasis and is available in the UK without prescription.¹ Fixed drug eruption (FDE) has been reported as an uncommon adverse effect but is rarely confirmed by patch testing.² We report a woman with FDE to fluconazole in whom the diagnosis was confirmed by extemporaneous patch testing with powdered capsule contents.

CASE REPORT

A 48-year-old woman with relapsing unilateral dorsal hand dermatitis was referred for routine patch testing (Figure 1). A review of her clinical photographs showed a localized vesicular plaque suggestive of FDE. Her only medication was intermittent oral fluconazole for self-diagnosed "thrush." She was tested with the British baseline series of allergens and powder contents of a fluconazole capsule applied in pet. in 12-mm Finn Chambers on Scanpor tape to the affected area of her hand and unaffected skin of her back. Tests were negative on day (D) 2 but on D4 she had an extreme positive (+++) reaction on her

hand (Figure 2) with no reaction on her back. Routine patch tests were negative. These findings confirmed the diagnosis of FDE and she was advised to avoid taking fluconazole.

DISCUSSION

FDE is a CD8-mediated reaction in which the causative agent leads to reactivation of resident memory T lymphocytes in the epidermis and dermis.³ Common causes include antibiotics, antifungals, nonsteroidal anti-inflammatory drugs, angiotensin-converting enzyme inhibitors, calcium channel blockers, proton pump inhibitors, and psychotropic drugs.³

Fluconazole is widely used for the treatment of superficial mycoses and is also licensed as treatment for invasive candida infections and prevention of fungal infections in immunocompromised patients. Severe cutaneous adverse reactions including Stevens-Johnson syndrome and toxic epidermal necrolysis have been reported following its use.⁴



FIGURE 1 Mild residual erythema on dorsal right hand at presentation



FIGURE 2 Bullous erythema on lesional skin patch test site on day 4

Reports of FDE to fluconazole are uncommon, but possibly this entity is overlooked.⁴ To the best of our knowledge, there have been 27 case reports of fluconazole-induced FDE. Patch testing to fluconazole was reported in 11 case reports but the results were positive in only three cases.^{1,4,5} Heikkilä et al reported positive reaction with fluconazole 10% pet. on lesional skin. Tavallae and Rad,¹ also obtained positive results using fluconazole 10% pet. and ethanol on lesional skin. Pai et al⁶ reported that patch testing was positive, but the authors did not specify the patch test site or formulation. The negative results in the other eight cases may be due to variability in formulation and timing of readings, as early readings may be negative.²

Cross reactivity with the structurally related triazole itraconazole has been reported in one case report.⁷ However, in six case reports of FDE to fluconazole where this was assessed, the results were negative and all patients subsequently tolerated itraconazole. The variability in cross reactivity is likely to be due to difference in molecular structure and side chains. We have only found two case reports of FDE to itraconazole and the diagnosis was not confirmed by patch testing.^{7,8} Lesional patch testing with other azoles has not been explored as a method for identifying cross-reactivity but could be safer than oral challenge.

Extemporaneous patch testing is a simple and inexpensive way of confirming drug hypersensitivity.⁹ However, in FDE it is essential to patch test lesional skin and late readings may be needed.² We report a fourth case of FDE to fluconazole, confirmed by patch tests with powdered capsule contents, and highlight the importance of a reading later than day 2.

CONFLICT OF INTEREST

None to declare.

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