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Fluconazole Induced Fixed Drug Eruption: Report of Three Cases

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Abstract

Observation: Fluconazole is a triazole antifungal agent, widely used for many indications.Wider availability, affordability and convenient dosage schedule has made fluconazole the most commonly prescribed antifungal. Very few cases of fixed drug eruption due to fluconazole are described in the literature. We demonstrated three cases of fluconazole-induced fixed drug eruption, during a period of six months at our department.

Introduction

Fixed drug eruption (FDE) is a distinctive variant of drug eruption with characteristic recurrence at the same mucocutaneous location. Fluconazole is a triazole antifungal agent, widely used for many indications. We observed three cases of fluconazole-induced FDE, during a period of six months at our department.

Case Reports

The first case, a 57-year-old diabetic man, presented with a rash over the right hand, which developed following the intake of fluconazole for candidal balanoposthitis. There was a history of similar lesions at identical site 6 months previously following oral fluconazole for tinea cruris. A solitary erythematous plaque of 3.5 cm diameter over the right hand was observed. (**Figure 1**)

The second case was one of a 30-year-old man who presented with multiple hyperpigmented macules all over the body. During the previous 6 months,

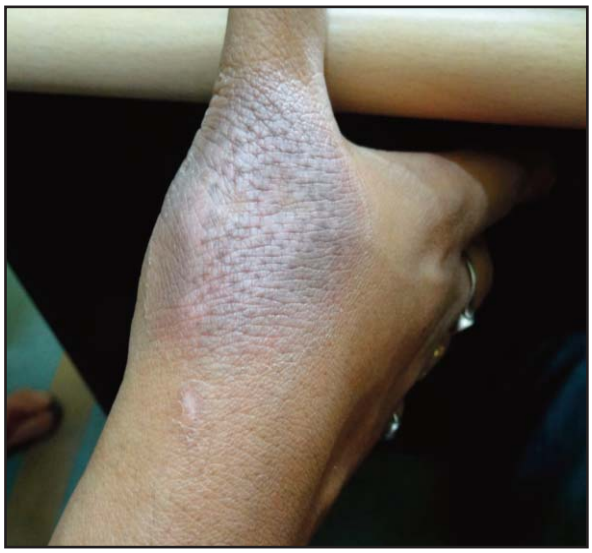

Figure 1. Solitary well defined erythematous plaque on the web space of right hand.

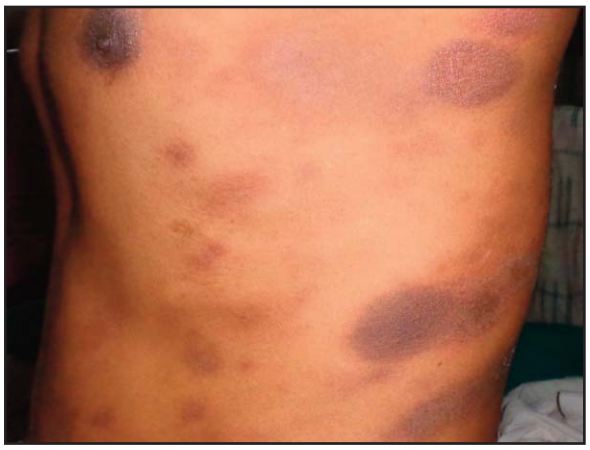

Figure 2. Multiple hyperpigmented patches on the trunk. (Case 2)

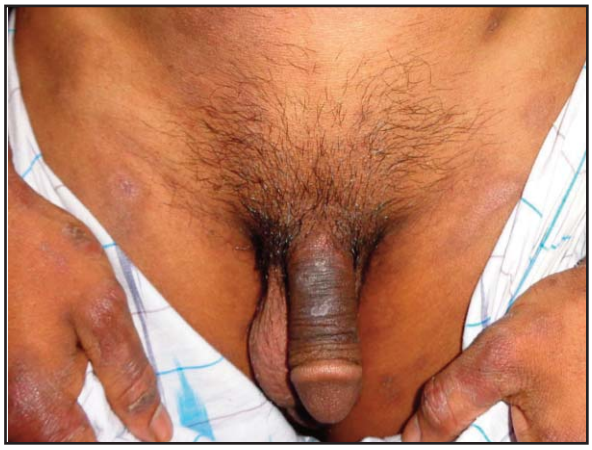

Figure 3. Multiple hyperpigmented patches on the lower abdomen, hands and genitalia. (Case 2)

he had two attacks of burning reddish eruptions over identical sites, the last episode occurred one month ago. On both the occasions, he had taken fluconazole on the advice of his family physician for unspecified skin rash. Multiple hyperpigmented macules were seen over the trunk, upper extremities, proximal parts of lower extremities and genitalia (**Figure 2 and 3**).

A skin biopsy was performed, showing basal layer degeneration, pigment incontinence and dermal melanophages. The third patient was a 35-year-old man who had a painful eruption on his penis for three days. On the day before the symptoms started, he had self-medicated with a single dose of fluconazole (150mg) for groin itch. Examination revealed erosive lesions on gland penis on the background of hyperpigmentation similar lesions on the inner surface of prepuce covered with purulent exudates (**Figure 4**). He had one similar attack four months ago after taking fluconazole for tinea cruris; the lesion healed with macular hyperpigmentation.

All the three patients had history of eruptions recurring at the same sites following oral fluconazole monotherapy. In all the cases, causality assessment using WHO-Uppsala monitoring centre (UMC) criteria and Naranjo's Scales labelled the reactions as "probable" (Naranjo's score = 7) relationship between the drug and development of FDE.

Drug challenge test for confirmation of diagnosis was not done owing to obvious ethical reasons.

Discussion

The drugs most frequently associated with FDE are sulfonamides, NSAIDs (in particular, phenazone derivatives), fluoroquinolones, [**1**] barbiturates, tetracyclines and carbamazepine. Fluconazole, a very popular drug for fungal infections, is emerging as a new culprit in the causality of FDE. Very few cases of FDE due to fluconazole are described in the literature [**2, 3, 4, 5, 6, 7**]. It is administered episodically, and symptoms begin and resolve without a pinpoint diagnosis. Since fluconazole is not among the more frequent and well-known offenders, the drug is rarely suspected as causative in FDE resulting in misdiagnosis and recurrence.

The relative frequency of a drug as a culprit causing FDE depends on the prevailing prescribing pattern. Sulfonamides and tetracyclines have been relegated by quinolones and nitroimidazoles as the common offenders in recent times. Wider availability, affordability and convenient dosage schedule has made fluconazole the most commonly prescribed antifungal. It is often used, particularly by non-dermatologists, for any trivial rash with a presumed diagnosis of fungal infection. Thus, we can expect more cases of fluconazole-induced FDE in future. Cross reactivity with other azoles antifungal in causing FDE, although unreported, remains a distinct possibility and should be kept in mind while prescribing an alternate antifungal.

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Figure 4. Hyperpigmented, erosive lesion on glans penis and inner surface of prepuce covered with purulent exudates (Case 3)

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