

Fluconazole Induced Fixed Drug Eruption: A Case Report

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ABSTRACT

Fluconazole is most commonly used drug in treatment of dermatophytes infection. Fluconazole induced FDE is one of the rare adverse drug reactions reported in literature. We report a case of 25-year-old male patient attended in dermatology OPD with lesions over the skin, round in shape. He was diagnosed as a case of tinea corporis and was prescribed Fluconazole 150 mg once in a week. He took drug at 2 p.m. and after 3 hours he noticed multiple well-defined hyperpigmented patches measuring 2-3 cm in diameter over left forearm and upper back area. He told that he had experienced same type of patches on same spot with same features 2 times in past. On the basis of history and examination, he was diagnosed as a case of fixed drug eruption associated with fluconazole. On both sites hyperpigmented patches were improved on 8th day after discontinuation of fluconazole.

Keywords: Fluconazole, Adverse Drug Reaction, Fixed Drug Eruption

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INTRODUCTION

Tinea corporis is a superficial fungal infection (dermatophyte) characterized by either inflammatory or noninflammatory lesions on the glabrous skin (ie, skin regions other than the scalp, groin, palms, and soles)¹. Tinea corporis may have so many variety of appearance, most common and easily identifiable are the enlarging raised red rings with clear centre area², that's why it is also known as ringworm³. The same appearances of ringworm may also occur on the scalp known as tinea capitis, beard area known as tinea barbae and the groin known as tinea cruris. Fluconazole is an antifungal drug used in various type of fungal infections includes candidiasis, blastomycosis, coccidioidomycosis, cryptococcosis, histoplasmosis, dermatophytosis, and pityriasis versicolor.⁴ It was coming into commercial use in 1988⁵. It is a fungistatic triazole derivative that is particularly effective against Cryptococcus

neoformans, well absorbed and passes readily across the blood-brain barrier into the cerebrospinal fluid. It is slowly eliminated unchanged in the urine⁶. Dose of 150 mg once weekly for 2-4 weeks is an efficacious and safe regimen in the treatment of tinea corporis and cruris⁷.

Adverse effects: Fluconazole is safe and well-tolerated antifungal drug, most frequently reported adverse effect is nausea. Other common reported adverse effects are vomiting, abdominal distension and discomfort and increased liver enzyme which is reversible in early stage of treatment, exfoliative skin disorders have been reported, but causal association has not been established⁶. Fixed drug eruption (FDE) is rarely reported with fluconazole.

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A case of fixed drug eruption associated with fluconazole was reported to Pharmacovigilance Programme of India (PvPI), Indian Pharmacopoeia Commission (IPC), Ghaziabad by Adverse Drug Reaction Monitoring Centre (ADRM), J. N. Medical College & Hospital, Aligarh Muslim University, Aligarh, U.P.

CASE STUDY

A 25-year-old male patient attended in dermatology OPD with lesions over the skin, round in shape. He was diagnosed as a case of *tenia corporis* and was prescribed FlunazTM (Fluconazole) 150 mg once in a week. He took drug at 2 p.m. and after 3 hours he noticed multiple well-defined hyperpigmented patches measuring 2-3 cm in diameter over left forearm (Fig. 1) and upper back area (Fig. 2). He told that he had experienced same type of patches on same spot with same features 2 times in past. Patient did not have any history of concomitant medication. On further enquiry patient reported that same type of black patches had appeared 2 times in past (3 months back and 5 months back). Each recurrence was at same sites with same features after ingestion of fluconazole for *tenia corporis* recurrence. On the basis of history and examination, he was diagnosed as a case of fixed drug eruption associated with fluconazole. On both sites hyperpigmented patches were improved on 8th day after discontinuation of fluconazole. Patient was suggested not to take fluconazole in future to avoid such adverse effect.

The case was registered in Vigiflow WHO-UMC (World Health Organization-Uppsala Monitoring Centre) software under worldwide unique number IN-IPC-2018-07524, AMC Report No. JNMCH/Feb-2018/06. The causality assessment of this case was probable as per the WHO-UMC causality assessment scale.

DISCUSSION

Fixed drug eruption is an adverse cutaneous drug reaction that recurs at the same site of the skin after repeated exposure to the same drug⁸. It occurs usually from 30 minutes to 8 hours after exposure to the drug, sometimes it appears even after 16 hours.⁹ Fluconazole is a triazole antifungal drug which is commonly used in the treatment of dermatophytic and candida infections. Most common side effects are nausea, vomiting, abdominal discomfort, increased in liver enzymes. There are so many drugs which can cause FDE like cotrimoxazole, tetracycline, nonsteroidal anti-inflammatory drugs, metronidazole, penicillin, allopurinol, sulfonamide and quinine.¹⁰ Fluconazole is one of the common medicines used in dermatological practice, it is safe and widely used for the treatment of fungal infection. However, FDE could be one of the rare adverse effect of fluconazole. In our case, causality assessment was probable as per the WHO-UMC causality assessment scale. Vigic access status of this case is 166, means only 166 suspected adverse reaction is reported to the WHO Programme for International Drug Monitoring (WHO PIDM) till now.¹¹

CONCLUSION

It was a rare case of fixed drug eruption associated with Fluconazole. The causality assessment supported probable association. This case report further emphasizes the need for continuous ADR monitoring and reporting for healthcare professionals and vigilance on fluconazole to avoid such FDE events.

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Fig 1: Hyperpigmented patch over forearm



Fig 2: Hyperpigmented patch on upper back

REFERENCES

1. Pires CAA, Cruz NFS, Lobato AM, Sousa PO, Carneiro FRO, Mendes AMD. Clinical, epidemiological, and therapeutic profile of dermatophytosis. *An Bras Dermatol*. 2013;88(2):259-64.
2. Likness LP. Common dermatologic infections in athletes and return-to-play guidelines. *The Journal of the American Osteopathic Association*. 2011; 111 (6): 373-379.
3. Bologna, Jean; Jorizzo, Joseph L.; Rapini, Ronald P. *Dermatology* (2nd ed.). St. Louis, Mo.: Mosby Elsevier. 2007; p. 1135.
4. "Fluconazole". The American Society of Health-System Pharmacists. Archived from the original on 20 December 2016.
5. Fischer, Janos, Ganellin, C. Robin. *Analogue-based Drug Discovery*. John Wiley & Sons. 2006; p. 503.
6. Essential Medicines and Health Products Information Portal, A World Health Organization resource. Available from: <http://apps.who.int/medicinedocs/en/d/Js2215e/9.13.html#Js2215e.9.13>
7. Sary A, Sarnow E. Fluconazole in the treatment of tinea corporis and tinea cruris. *Dermatology*. 1998;196(2):237-41.
8. Kim YS, Kang HJ, Hahm JH. A case of generalized fixed drug eruption due to mefenamic acid. *Ann Dermatol*. 1996;8:211-14.
9. Kim CY, Kim JG, Oh CW. Fluconazole induced fixed drug eruption. *Ann Dermatol*. 2011; 23(Suppl 1):S1-3.
10. Mahboob A, Haroon TS. Drugs causing fixed eruptions: a study of 450 cases. *Int J Dermatol*. 1998, 37:833-8.
11. Vigiacess, Uppsala Monitoring Centre, WHO collaborating Centre for International Drug Monitoring. <http://www.vigiaccess.org>.