

Multiple Fixed Drug Eruption Caused by Ornidazole

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Précis

We present a case of multiple fixed drug eruption secondary to ornidazole without any cross-sensitivity with other drugs of the same group.

Discussion

Fixed drug eruptions can be caused by any drug. Ornidazole (4-nitroimidazole) is the latest antiamebic drug being widely prescribed because of its minimal side effects.¹ A review of the literature on multifocal fixed drug eruption (MFDE) due to ornidazole found only two reports, including the one we published previously.^{2,3} Here, we report a case of multiple FDE from exposure to ornidazole.

A 35-year-old male was prescribed tablets containing 200 mg of ofloxacin and 500 mg of ornidazole twice daily for diarrhea. Within 2 days of using the medicine, the patient reported to our department with numerous itchy skin lesions over the body. During this period, he was not taking any other medicine. Numerous hyperpigmented macules of varying size (2×2 to 5×3 cm) were present on the back, on the sides of the arms, and on the chest (Fig 1). The buccal mucosa was not involved. The patient had no history of such lesions.

The provisional diagnosis was MFDE from exposure to ofloxacin or ornidazole. The patient was advised not to use either of these medicines in the future. The lesions disappeared with treatment, but postinflammatory hyperpigmentation persisted at the sites. After informed consent was obtained, the case was fixed for oral provocation testing or lesional patch testing (or both) to be done after 1 month. Unfortunately, during that 1 month, the patient developed a urinary tract infection; a private practitioner

PEARLS provide insight into understanding disease pathogenesis or improving treatment. ZEBRAS inform about previously unrecognized conditions or atypical variants of known disorders.

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advised oral ofloxacin, which the patient consumed despite contrary advice. The urinary tract infection was treated, and the patient did not develop any sort of skin lesion. This ruled out ofloxacin as the agent causing the skin lesion that the patient had developed earlier upon using a combination of ofloxacin and ornidazole to treat diarrhea and established that only ornidazole was responsible for the lesion.

Lesional patch testing was done by applying a crushed 500 mg ornidazole tablet dispersed with 50% petrolatum.³ The test result was negative. An oral provocation test was then done by having the patient swallow a single 500 mg tablet of ornidazole. Two hours after ingestion, the patient developed itching and erythema with the flare-up of some of old lesions, which later established that ornidazole was without doubt the offending agent. The result of oral provocation testing done separately with other drugs of the same group (such as metronidazole, tinidazole, and secnidazole) was negative.

Patch testing is an important tool for predicting the offending drug. In a study conducted by Cham and

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Figure 1. Multiple hyperpigmented macules of varying size with surrounding erythema on the back.

Warshaw, patch-test positivity in drug reactions caused by antibiotics varied from 31 to 83%.⁴ Ornidazole is a safe drug with minimal side effects and is prescribed quite often for diarrhea. Most of the time, it is not possible to detect the infective agent of diarrhea, so the patient is routinely treated empirically with a combination pill containing one quinolone derivative and one nitroimidazole derivative (although this is irrational).⁵ Cross-sensitivity with other drugs of same group has been seen only sparingly.^{3,6} Thus, if any drug in the nitroimidazole

group is suspected to be the cause of a drug reaction, the other drugs in this group cannot be ignored for future use because of the endemicity of amebiasis in the Asian region. Furthermore, we feel compelled to use any of the nitroimidazole drugs because no better antiamebic drug is available to us. To the best of our knowledge, this is the first case report of MFDE caused by ornidazole without any cross-sensitivity to other compounds of same group.

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We reached the following conclusions:

1. Ornidazole should be added to the list of drugs causing MFDE.
2. Provocation testing is safe and should be done without hesitation when needed.^{3,6}
3. Cross-sensitivity with other drugs of the offending group is not always there; hence, other drugs can be prescribed if no better alternative is available.

References

1. Kurt O, Girginkardeşler N, Balcioglu IC, et al. A comparison of metronidazole and single-dose ornidazole for the treatment of *dientamoebiasis*. *Clin Microbiol Infect* 2008;14:601–4, doi:[10.1111/j.1469-0691.2008.02002.x](https://doi.org/10.1111/j.1469-0691.2008.02002.x).
2. Sanmukhani J, Shah V, Baxi S, Tripathi C. Fixed drug eruption with ornidazole having cross-sensitivity to secnidazole but not to other nitro-imidazole compounds: a case report. *Br J Clin Pharmacol* 2010; 69:703–4, doi:[10.1111/j.1365-2125.2010.03651.x](https://doi.org/10.1111/j.1365-2125.2010.03651.x).
3. Gupta S, Jain VK, Aggarwal K, Gupta S. Fixed drug eruption caused by ornidazole. *Contact Dermatitis* 2005;53:300–1, doi:[10.1111/j.0105-1873.2005.0654b.x](https://doi.org/10.1111/j.0105-1873.2005.0654b.x).
4. Cham MHP, Warshaw EM. Patch testing for evaluating drug reactions due to systemic antibiotics. *Dermatitis* 2007;18:63–7, doi:[10.2310/6620.2007.05061](https://doi.org/10.2310/6620.2007.05061).
5. Chakrabarti A. Prescription of fixed dose combination drugs for diarrhoea. *Indian J Med Ethics* 2007;4:165–7.
6. Gupta S, Gupta S, Mittal A, David S. Oral fixed drug eruption caused by gabapentin. *J Eur Acad Dermatol Venereol* 2009;23:1207–8, doi:[10.1111/j.1468-3083.2009.03124.x](https://doi.org/10.1111/j.1468-3083.2009.03124.x).