Multiple Fixed Drug Eruption due to Ornidazole – A Case Report
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Introduction: Fixed drug eruption (FDE) is the development of one or more annular or oval erythematous patches as a result of systemic exposure to a drug; these reactions may recur at the same site with reexposure to the drug. Repeated exposure to the offending drug may cause new lesions to develop in addition to "lighting up" the older hyperpigmented lesions. FDE is 'fixed' in the sense that the area involved is the same with every episode of the eruption and the offending drug is the same too. There is a list of drugs notorious for producing FDE. We are hereby presenting a case of multiple FDE (MFDE) due to the use of Ornidazole. Very few cases of MFDE due to Ornidazole have been so far reported (1-3).

Fig. 1 Shows dark colored macular spots on the left leg.

Fig. 2 Shows similar lesion on the left wrist.

Case Report: A young male laborer had history of pain abdomen and diarrhea of two day's duration. After just taking two doses of a combination tablet of 200 mg Ofloxacin and 500 mg Ornidazole he developed rash on his leg and hands. On inquiry he gave history of similar rash at the same spots in the past. In fact he had brought the past prescriptions too. The prescription dated one year back mentioned Ornidazole, and it was prescribed for acute diarrheal illness. The rash was in the form of multiple macules on the legs and hands. He immediately stopped medicines and reported to me after another two days. He did not have any mucosal lesions nor did the eruption appear after stopping the drug. A diagnosis of Ornidazole induced multiple fixed drug eruption (MFDE) was made and patient advised to avoid the drug in the future. Oral provocation testing was not done as the diagnosis was obvious and we did not want to take the risk of a third time eruption especially on a cosmetically sensitive area as the face.
Fixed Drug Eruptions are reactions characterized by one or more sharply demarcated, erythematous lesions. The eruption usually appears within hours of administration of the offending agent. Hyperpigmentation results after resolution of the acute inflammation; with rechallenge, the lesion recurs in the same (i.e., “fixed”) location. These circular areas of erythema can become bullous if the offending drug is continued and may even burst and ooze out serous fluid. If the drug is stopped, FDE resolve and remain as brown macules. Lesions often involve the lips, hands, legs, face, genitalia, and oral mucosa and cause burning. Many patients have multiple lesions (multiple FDE). Patch testing is useful to establish the etiology. FDE have been associated with phenolphthalein, sulfonamides, tetracyclines, phenylbutazone, nonsteroidal anti-inflammatory drugs (NSAIDs), barbiturates and the use of nitroimidazoles. Cross-sensitivity appears to occur between different tetracycline compounds and nitroimidazoles. Many types of FDE have been described, based on their clinical features and the distribution of the lesions (4). These are: the Pigmenting FDE, Generalized or multiple FDE, Linear FDE, Wandering FDE, Non-pigmenting FDE, Bullous FDE, Eczematous FDE, Urticarial FDE, and Erythema dyschromicum perstans–like FDE.

Other causes of a dark colored eruption or skin lesion includes the use of anti-malarials like Chloroquine and hydroxychloroquine which produce gray-brown to blue-black discoloration of the shins, hard palate, and face. Prolonged minocycline administration can lead to blue macules which can be seen on the lower extremities and in sites of inflammation. Estrogen in oral contraceptives can induce melasma which produces symmetric brown patches on the face, especially the cheeks, upper lip, and forehead. Similar changes are seen in pregnancy, and in patients on Phenytoin. Hyperpigmentation of the distal lower extremities is seen in in the adult form of Gaucher’s disease.

Ornidazole is a 4-Nitroimidazole similar to Metronidazole and Tinidazole but with a longer half life and lesser side effects (5). In Kashmir, as in other parts of India combination of Ofloxacin and Ornidazole is commonly prescribed to treat diarrhea considering the mixed etiology in this part of the world. Also the dosage frequency of both the drugs is same i.e. twice a day. Ornidazole produces gastrointestinal side effects like nausea, vomiting, anorexia and bitter or metallic taste. CNS effects include dizziness, vertigo, somnolence, tremor, rigidity, and rarely convulsions. Cases of mixed peripheral neuropathy, bone marrow aplasia, neutropenia, fatigue, loose stools and headache have been reported. Cases of FDE due to the use of Ornidazole is rarely reported (1-3). Surprisingly in the first study on Ornidazole conducted on 20 females in 1977, using 2 gm as single dose, none of the patients developed FDE (6).

References:

Conflict of Interest: None.
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