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Case Report

Self-medicated, satranidazole induced fixed drug eruption: a case report

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ABSTRACT

Fixed drug eruption (FDE) is described as the development of one or more annular or oval erythematous patches as a result of systemic exposure to a drug; these reactions normally resolve with hyperpigmentation and may recur at the same site with re-exposure to the drug. Repeated exposure to the offending drug may cause new lesions to develop in addition to lighting up the older hyperpigmented lesions. Here we present an interesting case of satranidazole induced FDE with a past history of FDE to the same drug 5 months back. Since the eruption occurred in the same site on re-exposure to the same drug, a diagnosis of FDE was made and causality assessment by Naranjo adverse drug reaction probability scale showed a certain relationship between the cutaneous adverse reaction and the offending drug

Keywords: Fixed drug eruption, Satranidazole, Self-medication

INTRODUCTION

Cutaneous drug reactions are the most frequently occurring adverse reactions to drugs. The frequency of cutaneous reactions to specific drugs may exceed 10%. There are four categories of cutaneous drug reactions: immediate-type immune-mediated reactions, delayed-type immune-mediated reactions, photosensitivity reactions, and autoimmune syndromes.¹ Drug induced cutaneous eruptions frequently display a characteristic clinical morphology such as morbilliform exanthem, urticaria, hypersensitivity syndrome pseudolymphoma, photosensitivity, pigmentary changes, acute generalized exanthematous pustulosis, lichenoid dermatitis, vasculitis, Steven-Johnson syndrome, or fixed drug eruption.²

Fixed drug eruption (FDE) are distinct type of drug eruptions that appear as pruritic, well circumscribed, round or oval-shaped, erythematous macules or edematous plaques and characteristically recur at the

same sites up on re exposure to the offending drug. They usually resolve spontaneously with hyperpigmentation.³ After healing, lesions present on the skin and mucous membrane for prolonged periods as grey brown macules. On repeated exposure the number and severity of lesions may increase. Symptoms like swelling and redness of skin can be seen as early within 30 minutes of exposure to the drug. Extremities, genitals and perianal areas are the most common areas where the lesions can be seen but they may appear on any location.

Nitroimidazoles are low molecular weight antimicrobial compounds with excellent activity against anaerobic micro-organisms and protozoa. They are the first line drugs for hepatic and intestinal amoebiasis. All the nitroimidazoles: metronidazole, tinidazole, ornidazole, secnidazole and satranidazole, have a similar nitroimidazole ring but different side chains.

Although all these molecules have been used for a long time without many side-effects, only metronidazole and

tinidazole have been reported to cause FDEs with cross sensitivity to each other and are included in the list of drugs causing FDE.^{4,5} To our knowledge so far, no reports for satranidazole had been reported. We thought it is an interesting case of satranidazole induced FDE that happened during the COVID-19 pandemic.

CASE REPORT

A 30-year-old woman who had diarrheal episodes with mild abdominal pain approximately 5 months back, self-medicated herself with tablets which her relative had been prescribed by a general practitioner for similar complaints. After a few hours she had experienced mild itching over the right side of her lower lip which increased in intensity. She convinced herself that it could be due to some insect bite and did some home remedies. She has taken only two tablets from that strip and discontinued treatment as her gastrointestinal symptoms improved. But the lesion over the lip remained with a hyperpigmentation for nearly 10 days after which it gradually disappeared (Figure 1).

Again after 5 months, as the woman had loose stools after eating outside food, she took the same tablet from the left-over strip and within 4 hours she developed intense itching over the right side of her lower lip exactly in the same site that she had developed for the first time. This time as the lesion was painful and itchy, she consulted a physician and was diagnosed as a FDE and the offending drug was stopped immediately and she was treated with topical vaseline gel and systemic antihistamines after which the symptoms subsided. On day 2 the lesion became dry and less itchy. The third day the lesion became dry with a scab formed over it. Itching and redness got relieved gradually.

Figure 1: Day 3 of FDE, after stopping the drug and started treatment with antihistamines.

DISCUSSION

Self-medication has been defined as the use of drugs to treat self-diagnosed disorders or symptoms or the intermittent, or continued use of prescribed drugs for

chronic or recurrent disease or symptoms.⁶ Here our patient has approached for treatment only when she had the FDE for the second time, which otherwise could have been missed.

Satranidazole an antimicrobial agent, belongs to a group of nitroimidazoles, has broad spectrum activity against protozoa and some anaerobic bacteria. It is well absorbed orally and widely distributed and has a half-life of 14 hours. Though satranidazole has similar potency with that of metronidazole it differs in adverse effect profile as it is devoid of producing metallic taste (notorious with metronidazole) neurological adverse effects and disulfiram like reaction. Because of these advantages the drug could have been prescribed for the patient's relative who is an alcoholic for whom the compliance was very good.

Though many cases of FDE induced by other nitroimidazoles have been reported so far, no such reaction with satranidazole has been reported. Here in this patient, temporal association between the drug and the reaction, de-challenges and rechallenge are positive and we have graded this as a certain type of adverse drug reaction according to Naranjo's scale.

CONCLUSION

Though FDR could be produced by a wide variety of drugs, during this unprecedented COVID-19 times, increased self-medication with drugs especially with over the counter (OTC) antibiotics could not only increase the chances of drug resistance but also increase the cost of treating drug induced diseases. Public awareness about adverse drug reactions and its prompt reporting, the cost to be incurred in managing those and the problem of developing antimicrobial resistance should be created through public forums and other media. Thus, improved knowledge about self-medication would possibly mitigate the adverse drug reactions and improve its management.

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