METRONIDAZOLE INDUCED MACULOPAPULAR RASHES: CASE REPORT

1. Dr.Prashant Wadagbalkar

Professor, Department of pharmacology
Index Medical College, Indore.
Email- drprashantw@gmail.com
Address---flat no 105,Shalimar Township.
A.B.road, Indore

2. Dr.Poonam Patel

Assistant professor, Department of pharmacology
Index Medical College, Indore.
Email- dr.pp84@gmail.com
Address---flat no 604,Dwarika Palace
Near Summer park colony, Napaniya, Indore

3. Dr. Rishu Mishra

P.G Resident
Address---Flat no .001 Amaltas PG Block,
Index Medical College, Indore.

Summary

Maculopapular rashes are very common drug reaction and caused by most of the drug. Though incidence of fixed drug erruption are more with metronidazole as compared to maculopapular rashes. We have noted maculopapular rashes after few hours of iv infusion of metronidazole. Metronidazole infusion. was stopped and the patient was managed with IV Avil 2cc stat and IV dexamethasone 2cc stat.

Key words: Metronidazole, Maculopapular rashes, diarrhoea

INTRODUCTION

Metronidazole is a synthetic, nitroimidazole-derivative clinically indicated in trichomoniasis, amebiasis, giardiasis, anaerobic and mixed antibacterial infections[1,2]. It's a prodrug that is activated by reduction of the nitro group by susceptible organisms[3] and acts by getting reduced to a product which interacts with DNA to cause a loss of helical DNA structure and strand breakage resulting in inhibition of protein synthesis and cell death in susceptible organism[4]. Common side effects are headache, nausea, dry mouth, and a metallic taste. Vomiting, diarrhoea, and abdominal distress are experienced occasionally. The most dangerous side effects are Neurotoxic side effects. Rashes are infrequent side effect. Metronidazole is very commonly prescribed in OPD, in wards and also self medicated without any problem. Reports of fixed drug eruption are increasing now and well reported. But we haven't found much report on maculopapular rashes.

Case report

Patient was 48 yr female; weight 50kg suffering from diarrhoea and vomiting she goes to washroom 15 -17 times a day from one day and vomit if she takes anything from mouth. She was admitted on 26/11/14 in Index Medical College for treatment. Treatment was started with IVfluid (RL), IV metronidazole 100ml TDS, and ondensetron I.V. After few hr she developed diffuse itching over hand, leg, back and rashes all over the body. Rashes were round in shape, raised from the body surface, appeared reddish in colour, and hot on touch. The treatment was stopped by doctor immediately and IV Avil 2cc stat and IV dexamethasone 2cc stat was given. The rashes and itching subsided after few hours. To confirm culprit drug, next day we reintroduce the drug at different time interval. Rashes again reappear after introduction of metronidazole, which confirm that patient is hypersensitive to metronidazole.

We carried out the causality assessments as per the naranjo[5] algorithm and preventability and severity assessments as per the hartwig[6] scale. The causality assessment revealed a "probable" association (naranjo score 7) between the ADR and metronidazole. The severity was found to be moderate (level 3). The preventability analysis revealed the ADR to be "not preventable

Discussion

Drug induced reaction are very common and almost every drug can cause drug reaction. A drug-induced reaction should be considered in any patient who is taking medications and who suddenly develops a symmetric cutaneous eruption[7]. Among all hospitalized patients, the incidence of cutaneous drug reaction has been found to range from 1 to 3%[8,9]. Maculopapular rashes consist of macules (distinct flat areas) and papules (raised lesions). The rash is usually bright red in colour and the skin may feel hot with burning sensation or itch. Maculopapular exanthema is nonimmediate allergic reactions due to drugs and T helper 1 (Th1) cytokines and CD4 (+) T cells have been shown to play an important role in its pathogenesis[10]. The reason for rapid appearance of rashes may be due to IV route. The management of such reactions needed withdrawal of the suspected drug and management of symptoms, if any[11]. The suspected drug was stopped immediately following the ADR and antihistamines were added to manage itching due to drug reaction and our patient responded well. The rechallange test done after obtaining concern from the patient. The severity assessment revealed the ADR to be moderate (level 3), suggesting that the suspected drug should be withheld, discontinued, or changed, and/or on antidote or other treatment is required. As this patient did not have any past history of skin reaction due to metronidazole or any other drugs, therefore this reaction was unpreventable.

Conclusion

Metronidazole is widely used in OPD and Indoore pt. Physician must suspect if such reaction occur during therapy involving metronidazole and should carefully evaluate drug-associated rashes. It is important that skin reactions are identified and documented in the patient record so that their recurrence can be avoided in future.

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