WORLD JOURNAL OF CURRENT MEDICAL AND PHARMACEUTICAL RESEARCH

www.wjcmpr.com ISSN: 2582-0222

Case Report on Metronidazole Induced Rash

Dr.Allu Hari Krishna[1], K.Mahesh Pavan[2], B.Navya Deepika[2], V.Upajna[2].

[1]Associate Professor in Avanthi Institute of Pharmaceutical Sciences, Cherukupally, Vizianagaram.

[2]Student of Avanthi Institute of Pharmaceutical Sciences, Cherukupally, Vizianagaram.

ABSTRACT

Metronidazole is a synthetic nitroimidazole. It acts by disruption of DNA and inhibition of nucleic acid synthesis. Hypersensitivity reactions, including urticaria, pruritus, erythematous rash, and flushing have been reported; however, the frequency of reactions is not known. This is a case report of 7 year old female Child patient who was admitted in paediatric ward in King George Hospital, Visakhapatnam with a chief complaint of fever with vomiting and loose stools since 7 days. On the 2nd day of her treatment, she developed rashes and facial flushing associated with redness of face. Metronidazole was stopped after 3 days of appearance of these complaints so we suspect that it is a condition of Metronidazole induced rash. Physician must suspect if such reactions occur during the treatment with Metronidazole and must cautiously evaluate such drug-associated rashes.

Key words:
Metronidazole,
Rash,
Adverse drug reaction.

Article History:
Received On: 11.01.2020
Revised On:10.03.2020
Accepted On:18.03.2020

*Corresponding Author
Name: K.Mahesh Pavan
Email: maheshpavankontheti@gmail.com

DOI: https://doi.org/10.37022/WJCMPR.2020.2202

INTRODUCTION

Metronidazole is a synthetic nitroimidazole. It acts by disruption of DNA and inhibition of nucleic acid synthesis˙ It is bactericidal against many anaerobic gram negative bacilli, anaerobic gram positive cocci and many pathogenic protozoa. It is metabolized in liver (Hydroxylation, oxidation and glucuronic conjugation) and excreted in urine (75%) and faeces (25%[1]. Hypersensitivity reactions, including urticaria, pruritus, erythematous rash, and flushing have been reported; however, the frequency of reactions is not known[2].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[3].

CASE REPORT

A 7 year old female Child patient who was admitted in paediatric ward in King George Hospital, Visakhapatnam with a chief complaint of fever with vomiting and loose stools since 7 days. She was prescribed with Inj. Ceftriaxone (80mg/kg/day, IV, BID), Inj. Pantoprazole(20mg, IV, OD), Inj. Metronidazole(20cc, IV, TID),inj. Ondansetron (2cc+2cc normal saline, IV, TID), T. Paracetamol(500mg, PO,TID),SYP. Zinc (5ml, PO, OD), sporolac sachets (PO, BD) for 4 days. On the next day, she developed rashes and facial flushing associated with redness of face. Metronidazole was stopped after 3 days of appearance of these complaints so we suspect that it is a condition of metronidazole induced rash. On laboratory examination she had Haemoglobin: 10.4g%, Packed cell volume: 34%, Platelets: 3.54 lakhs/cumm, WBC: 6800 cells/cumm, Neutrophils: 52%, Lymphocytes: 44%, Eosinophils: 3%, Monocytes: 1%, Urea: 13.6mg/dl, Serum creatinine: 0.5mg/dl, Bilirubin: 0.4mg/dl, Alkaline phosphatase: 110 IU/l, SGOT: 198U/l, SGPT: 62.8U/l and she was diagnosed with viral haemorrhagic fever with acute gastroenteritis.

ADR HISTORY

The patient was administered with metronidazole as a definitive therapy and ceftriaxone as prophylactic therapy. Rashes were observed on the 2nd day of treatment and on the next day physician stopped prescribing metronidazole. After 5 days the patient was discharged against medical advices. We suspect that the ADR has occurred due to metronidazole as per the reference of Primary and secondary sources. ADR having level of severity mild as per Hartwig severity assessment scale and causality assessment was probable as per WHO-causality assessment scale. Symptoms include: Rashes and facial flushing associated with redness of face.

ADR ANALYSIS

Suspected drug and reactions	Hartwig severity assessment scale	WHO-causality assessment scale
Metronidazole induced Rashes	mild: level 2	Probable

ADR MANAGEMENT

ADR management includes withdrawal or suspension, dose reduction of suspected drug and administration of supportive therapy. In this case the suspected drug metronidazole was discontinued.

CLINICAL PHARMACIST PRESCRIPTION EVALUATION

Physician confirmed that the rash is due to Inj. Metronidazole, but we suspect that it may be due to concomitant administration of Inj. Ceftriaxone along with Inj. Metronidazole may the reason for the occurrence of the rash.

In this prescription we also found ceftriaxone which also cause rash based up on the evidence form with Ceftriaxone Induced Rash Dermatitis: A Case Report Vageeshwari Devuni[4].

DISCUSSION

Metronidazole is a synthetic, nitroimidazole-derivative clinically indicated in trichomoniasis, amebiasis, giardiasis, anaerobic and mixed antibacterial infections. 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. The rash is usually bright red in colour and the skin may feel hot with burning sensation or itch [5]. While comparing our work with metronidazole induced maculopapular rashes: case report by Dr.Prashant Wadagbalkar et al, the suspected drug was discontinued.

CONCLUSION

Metronidazole is an anti- protozoal drug used to treat infections. Physician must suspect if such reactions occur during the treatment with metronidazole and must cautiously evaluate such drug-associated rashes. It is important that skin reactions are identified and documented in the patient record and close monitoring of patients is very important and prescription must be analysed carefully.

REFERENCES

1. Rare Side Effects of Metronidazole -Venkategowda PM*1 and Rao SM2 ISSN: 2375-7043.
2. Metronidazole hypersensitivity and oral desensitization by Margaret L. Kurohara, MD, Frank K. Kwong, MD, Thomas B. Lebherz, MD, and William B. Klaustermeyer, MD Los Angeles, Calif.
3. Dr.Prashant Wadagbalkar et al. / International Journal of Pharma Sciences and Research (IJPSR), ISSN : 0975-9492 Vol 6 No 02 Feb 2015, METRONIDAZOLE INDUCED MACULOPAPULAR RASHES: CASEREPORT.
4. *International Journal of Science and Healthcare Research Vol.4; Issue: 2; April-June 2019 Website: www.ijshr.com Case Report ISSN: 2455-7587* Ceftriaxone Induced Rash Dermatitis: A Case Report Vageeshwari Devuni CMR College Of Pharmacy, Kandlakoya, Medchal road, Hyderabad.
5. METRONIDAZOLE INDUCED MACULOPAPULAR RASHES: CASE REPORT BY Dr.Prashant Wadagbalkar et al. / International Journal of Pharma Sciences and Research (IJPSR).