Hypersensitivity reaction to Clarithromycin - Case Report.

N. S. Neki
Professor, Department of Medicine, Govt. Medical College/ Rajindra Hospital, Patiala, 147001, Punjab, India

ABSTRACT

Adverse drug reactions (ADRs) to prescribed medicines are the major challenges in the continuation of treatment in majority cases. ADRs are categorised as IgE mediated and non IgE mediated hypersentivity reactions. Clarithromycin is an oral antimicrobial extensively used against various gram positive and gram negative organisms. We report a case of 50 years male presenting with fever and body aches from which he was prescribed tablet clarithromycin by a practitioner. After 2 days of consumption of clarithromycin he developed urticarial rashes following which the drug was immediately stopped with disappearance of rash.

Keywords: Clarithromycin, Rash, Hypersentivity Reactions.

INTRODUCTION

Clarithromycin is semi synthetic macrolide antibiotic with a broad spectrum of activity against gram positive and a few gram negative organisms. It is used in the management of upper and lower respiratory tract infections whooping cough, otitis media, atypical pneumonia, sinusitis, tonsillitis, skin and soft tissue infections. Adverse effects include reversible hearing loss, indigestion, pseudomembranous enterocolitis, liver toxicity, rhabdomyolysis and hypersentivity reactions.[1-4] Urticarial rashes can be managed with pharmacological, non-pharmacological measures as well as by immunomodulators in cases of auto immunity.[5]

Name & Address of Corresponding Author
Dr. N. S. Neki,
Professor, Dept of Medicine,
Govt. Medical College/ Rajindra Hospital, Patiala, 147001, Punjab, India
E-mail: drneki123@gmail.com

CASE REPORT

A 50 year male patient non hypertensive, non alcoholic, non smoker and non diabetic presented with fever, body aches since 2 days. He had no history of allergy to pencillin and cephalosporins. On examination he was conscious, BP 120/80 mmHg, Pulse rate 80 beats/min. Laboratory investigations revealded Hb 12.3 g/dl, Total cell count 11200/mm3, Differential cell count P 80, L 20, E 0, B 0, ESR 20 mm at the end of 1st hour. X-ray chest was normal. Liver, renal profile, serum electrolytes and ECG was within normal limits. He was put on tablet Clarithromycin 1 gm daily. On 4th day, he developed urticarial rashes all over the body. Clarithromycin was withdrawn immediately. He was treated with antihistamines, corticosteroids, Inj Ceftiaxone, local treatment of rashes and nutritional support. Rashes disappeared within 7 days and he was discharged in a stable condition.

DISCUSSION

Antibiotic hypersensitivity can lead to significant morbidity, mortality and suboptimal treatment options. Clarithromycin is the treatment of choice for M.chelonae infection.[6] Serious adverse drug reactions occur in 6.7% of hospitalised patients and rank fourth to sixth leading cause of death in these patients.[7] Since 1998, there has beena 2.6 fold rise in serious adverse drug reactions reported to the US Food and Drug Amnistration.[8] Clinical manifestations range from urticaria to life threatening angio-edema and anaphylaxis. Rapid desensitization (RD) induces temporary immunological tolerance in a host with type1 hypersensitivity reaction so that patients are able to receive optimal treatment while avoiding or minimizing anaphylaxis and anaphylactoid reactions. Tolerance is maintained only if drug antigens are given at regular intervals.[9] Desensitization protocols have been advocated in various drugs like pencillins, cephalosporins, vancomycin, sulphonamides, rifampicin, non-steroidal anti-inflammatory drugs and chemotherapeutic agents (platins, taxanes).Our patient refused for performing these desensitization protocols.

Our patient was suspected to have suffered episode of urticarial rash with clarithromycin treatment. There was reasonable temporal relationship between the adverse event and drug exposure. Disappearance of rash occurred on dechallenge. Rechallenge did not occur. The Naranjo's ADR probability score also confirmed the casualty as probable[10].

CONCLUSION

Clarithromycin induced rash must be suspected in those using it. The drug must be withdrawn in the

event of adverse drug reactions. Awareness must be created among practitioners. Physicians to report all the ADRs to the adverse drug reaction reporting centres.

REFERENCES

1. Pai MP, Graci DM, Amsden GW. Macrolide drug interactions; an update. Ann Pharmacother 2000; 344: 495-513.
2. Fonacier LS, Dreskin SC, Leung DY. Allergic skin diseases. J Allergy ClinImmunol 2010; 125: 138-49.
3. West phal JF. Macrolide induced clinically relevant drug interactions with cytochrome P-450 A (CYP) 3A4: an update focussed on Clarithromycin, azithromycin anddirithromycin. Br J ClinPharmacol 2000; 504 : 285-95.
4. Patel AM, Shariff S, Bailey DG et al. Statin toxicity from macrolide antibiotic coprescription : a population based cohort study. Ann Intern Med 2013; 15812 : 869-76
5. Ruzica JT, Jasna L, Branka M, et al. Treatment of chronic urticarial. ActaDermatovenerol Croat. 2009; 174 : 305-22
6. Brown-Elliott BA, Wallace RJ Jr. Clinical and taxonomic status of pathogenic nonpigmented or late pigmenting rapidly growing mycobacteria. Clin Microbiol Rev 2002;15:716-46.
7. Lazarou K, Pomeranz B,Corey P. Incidence of adverse drug reactions in hospitalised patients. JAMA 1998;279:1200-5.
8. Moore TJ, Cohen MR, Furberg CD.Serious adverse drug events to the Food and Drug Administarion 1998-2005. Arch Inter Med 2007;167:1752-9.
9. Castells M.Desensitization for drug allergy. Curr Opin Allergy Clin Immunol 2006;61:954-8.
10. Naranjo CA, Busto U, Sellers EM, Sandor P, Ruiz I; Roberts EA, et al. A method for estimating the probability of adverse drug reactions. Clin Pharmacol Ther 1981; 30: 239-45.

How to cite this article: Neki NS. Hypersensitivity reaction to Clarithromycin - Case Report. Ann. Int. Med. Den. Res. 2016;2(2):39-40.

Source of Support: Nil, **Conflict of Interest:** None declared