Print ISSN: 2319-2003 | Online ISSN: 2279-0780

IJBCP International Journal of Basic & Clinical Pharmacology

doi: 10.5455/2319-2003.ijbcp20130117

Case Report

Co-trimoxazole induced Stevens-Johnson syndrome in pediatric age group

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Received: 26 October 2012
Revised: 19 December 2012
Accepted: 20 December 2012

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ABSTRACT

Stevens-Johnson syndrome (SJS) is a serious dermatological disorder commonly caused as idiosyncratic reaction to drugs, the most common ones being antibiotics, anticonvulsants and non-steroidal anti-inflammatory drugs. Here, we report a case of co-trimoxazole induced SJS in a 2 years old male child.

Keywords: Co-trimoxazole, Drug reaction, Stevens-Johnson syndrome

INTRODUCTION

Cutaneous drug reactions, due to systemic drug administration, are one of the most common manifestations of adverse drug reactions. Some of the serious drug reactions include Stevens Johnson syndrome (SJS), toxic epidermal necrolysis and the overlap category of these two drug reactions. SJS is an uncommon but serious illness of skin and mucous membrane with systemic symptoms characterized by the presence of flat, atypical target lesions and the epidermal detachment is less than 10% of the total body surface area. Though many factors are involved in causation of SJS such as sensitivity to drugs, variety of infection, certain vaccines, toxins, malignancy and pregnancy, but the role of drugs is said to be the most important.[1]

More than 50% of the cases of SJS are attributed to drugs and more than hundred different drugs have been reported to cause SJS.[2] Most common drugs that cause SJS are antibacterials (sulfonamides, penicillin, fluoroquinolones), anticonvulsants (phenytoin, phenobarbital, carbamazepine, valproate, lamotrigine), non-steroidal anti-inflammatory drugs (valdecoxib, diclofenac, ibuprofen, oxicam derivatives) and allopurinol.[3]

CASE REPORT

A 2-year-old male child was brought to OPD with complaints of fever and extensive rashes on the face, neck and abdomen. There was a history of co-trimoxazole and paracetamol medications taken for acute upper respiratory tract infection. On clinical examination, the child was irritable and on cutaneous examination, generalized, maculopapular and bullous eruptions were present on the neck, face and the trunk (Figure 1). Some lesions were also present on the dorsal aspects of hands. Ophthalmic examination showed acute conjunctivitis and subconjunctival hemorrhages. On oral examination, the patient had multiple hemorrhagic ulcers on the buccal mucosa, soft palate and both lips.

A complete past history was taken. There was no incidence of previous hypersensitivity reaction to drugs. The laboratory investigations showed total white blood cell count- 5120-cells/cu mm and hemoglobin- 12.4 gm/dl. The platelet count and blood glucose were normal. Biochemical investigations were within normal limits. A chest radiograph of the child did not show any active lesion. On the basis of the history and clinical presentation, a diagnosis of co-trimoxazole induced SJS was made by dermatologists. Co-trimoxazole was withdrawn from treatment and the child was completely recovered by systemic steroid along with topical antibiotics (Figure 2).

Figure 1: Picture of child before treatment.

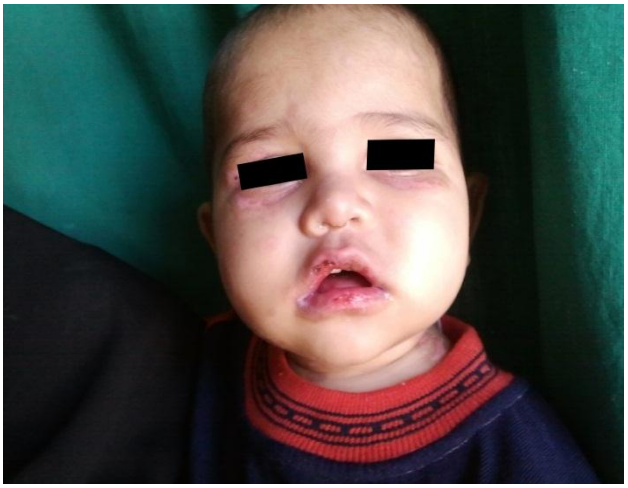

Figure 2: Picture of child after treatment.

DISCUSSION

SJS is a severe dermatological disorder characterized by acute skin blisters and mucous membrane erosions. It has a multiple etiologic pattern, drugs being the most commonly implicated. Other risk factors for SJS include HIV, other viral infections, genetic factors, vaccination, graft versus host disease, malignancy and idiopathy. Patients are at a greater risk of this type of drug reaction during the first 4 weeks of therapy, particularly between 1 and 3 weeks. Majority cases of SJS begin with fever, malaise and nonspecific symptoms.[3]

Co-trimoxazole, a combination of trimethoprim and sulfamethoxazole in the ratio of 1:5, is a widely prescribed antimicrobial for the management of several uncomplicated infections. But there has been some concern about its use since it has been associated with both frequent mild allergic reactions and serious adverse effects. The most common adverse reactions include nausea, vomiting, anorexia, dermatological reactions and less commonly include SJS, exfoliative dermatitis, erythema multiforme, toxic epidermal necrolysis, bone marrow toxicity, thrombocytopenia and severe liver damage.[4]

In present case, there were signs and symptoms of SJS after taking co-trimoxazole and paracetamol. Child was completely recovered by withdrawal of most suspicious drug co-trimoxazole from treatment. On this basis, diagnosis was made as co-trimoxazole induced SJS as other causes like HIV, any malignancy or vaccination were not present. As this was an acute presentation in a 2 years old child, which occurred right after the drugs were administered, systemic lupus erythematosus, pemphigus and rheumatological disorders were ruled out. SJS was diagnosed from the history and typical clinical features. According to the Naranjo ADR probability scale (score= 7),[5] this ADR is categorized as a 'probable' reaction to the drug.

CONCLUSION

This case illustrates a clinically important and life threatening hypersensitivity reaction to co-trimoxazole which is widely used for the management of several uncomplicated infections. Due to the high incidence of such adverse drug reactions, physicians should prescribe other alternative safer antibiotic in pediatric age group.

REFERENCES

1. Harr T, French LE. Toxic epidermal necrolysis and Stevens-Johnson syndrome. Orphanet J Rare Dis 2010;5:39.
2. Brett AS, Philips D, Lynn AW. Intravenous immunoglobulin therapy for Steven-Johnson syndrome. South Med J 2001;94:342-3.
3. Bhasin A, Gurtoo A, Gupta L, Aggarwal G. First case of mirtazepine-induced Stevens-Johnson syndrome from India. Indian J Pharmacol 2012;44:656-8.
4. Tripathi KD. Essentials of Medical Pharmacology. New Delhi: Jaypee publication, 6th edition; 2008:686.
5. 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.

doi: 10.5455/2319-2003.ijbcp20130117
Cite this article as: Bhosale RR, Patil AV, Mokase YG. Co-trimoxazole induced Stevens-Johnson syndrome in pediatric age group. Int J Basic Clin Pharmacol 2013;2:89-90.