International Journal of Current Advanced Research
ISSN: O: 2319-6475, ISSN: P: 2319-6505, Impact Factor: 6.614
Available Online at www.journalijcar.org
Volume 10; Issue 03 (A); March 2021; Page No.23971-23972
DOI: http://dx.doi.org/10.24327/ijcar.2021.23972.4750

Research Article

A RARE CASE OF STEVEN JOHNSON SYNDROME INDUCED BY A SINGLE DOSE OF PARACETAMOL

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A R T I C L E I N F O

Article History:
Received 6th December, 2020
Received in revised form 15th January, 2021
Accepted 12th February, 2021
Published online 28th March, 2021

Key words:
Hypersensitivity, Stevens - Johnson syndrome, paracetamol.

A B S T R A C T

Paracetamol is one of the most commonly available over the counter drug used as analgesic and antipyretic. It is considered to be a relatively safe drug. However, some rare cases of Stevens-Johnson syndrome (SJS) have been reported in the past which are thought to be associated with use of paracetamol. SJS is a severe, life-threatening hypersensitivity reaction and requires prolonged hospitalization and intensive care. Here; we present the case of a 21-year-old male who developed SJS after taking a dose of paracetamol.

INTRODUCTION

Stevens - Johnson syndrome (SJS) is an infrequent, severe, mucocutaneous blistering disorder with an acute and unpredictable onset causing considerable morbidity. Toxic Epidermal Necrolysis (TEN)is its more severe form Depending upon the body surface area(BSA) involved which is usually calculated by simple 'rule of nine' as in case of burns, this disorder is either classified as SJS(less than 10%), SJS – TEN overlap (10%- 30%) or TEN (more than 30%).[1]Polymorphic lesions like erythematous macules, papules, plaque, vesicles, and bullae affecting distal extremities with positive Nikolsky's sign are the characteristic features of the disease.[2] More than 100 drugs have been implicated in causing SJS and TEN, commonly associated among which include antibacterial(sulfonamides), anticonvulsants (phenytoin, phenobarbital, carbamazepine), non-steroidal anti-inflammatory drugs (oxicam derivatives) and oxide inhibitors (allopurinol).[2,3,4] Paracetamol is one of the extensively used antipyretic and analgesicdrug. Though considered relatively safe drug, adverse effects have been reported with its use. One such rare case of SJS associated with the use of paracetamol have been reported.

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Case Report

A 21 year old male reported to skin OPD with the complaints of erythematous lesions, itching over body, fever and difficulty in routine oral habits since three days.

It was associated with pain while speaking and taking food and there was no relieving factor. The History of the patient revealed that he had common cold three days back for which he took over the counter medication which was paracetamol. Within a span of two hours after taking the tablet the patient started having itching all over the body with multiple reddish raised lesions. Along with it the patient developed fluid filled lesions which ruptured to form raw areas in oral cavity. This was followed by development of fever.

The patient was well oriented and on cutaneous examination the lesions were found to bemultiple (more than 30) well defined targetoid patches present bilaterally over upper and lower limbs and trunk. Few lesions showed flaccid bullae at the centre .Oral examination revealed painful oral ulcers. Ulcers were present mostly over hard palate causing discomfort while speaking and eating food. Superficial erosions were present over lips. There was no involvement of genital area and no history of burning micturition. Palms, soles, scalp and nails were not involved. Pseudo – Nikolsky sign was positive.

Based on this the clinical diagnosis was Stevens-Johnson Syndrome. Bullous erythema multiforme was thought as a

differential diagnosis. The patient was advised haematological investigations which were all within normal limit. The patient was treated under expert guidance of dermatologist. He received injection dexamethasone 4 mg and injection phenaramine as a stat dose, tablet cyclosporin 100mg TDS for five days and then 100 mg OD for twodays, tablet cetrizine 10mg OD and tablet hydroxyzine 25 mg HS for five days for itching, triamcinolone acetate 0.1 % oral paste and betadine gargles for oral ulcers and fusidic acid 2% and betamethasone 0.12% cream for local application on erosions. The lesions were healing and new lesions did not appear after the third day of admission. Patient was discharged on fifth day with no new lesions.

Figure 1 Lesions on body

A. Lesions on arm
B. Targetoid lesions on hands
C. Lesions on trunk

DISCUSSION

Steven Johnson syndrome is a hypersensitivity reaction and known to have immunological pathogenesis. The reason behind the development of disease in only a few individual among all taking the same drug is still not clear. A widely accepted hypothesis has been that patients suffering from severe drug reactions are exposed to increased amounts of reactive (oxidative) metabolites because of a lowered ability to detoxify reactive metabolites, either on a genetic basis, or on a functional basis.[5]

Stevens - Johnson syndrome is most often associated with drug reactions and less frequently with infections. Among infections M.pneumoniae is the most common agent responsible for SJS.[6] Furthermore, Herpes simplex virus is associated withseveralcases of SJS, especially in children.[7] SJS is a rare disease with incidence reported as low as 1 to 2 per 1000000 annually by some of the studies.[8]With the drug like paracetamol, though extensively used the occurrence of SJS is very rare. But paracetamol is thought to be the culprit in some cases as mentioned in the previous case reports. Rajput *et al*. reported a case of paracetamol induced SJS with widespread macula-papular rash, stinging in the eyes, oral mucosal ulcerations, swollen lips and high-grade fever. Apart from swollen lips all the other features were similar in our case.[9] Being such a rare occurrence there always has been the paucity of data and it is difficult to ascertain strong association of paracetamol in causation of SJS.

CONCLUSION

SJS is a serious disease with unpredictable onset and considerable morbidity. Alertness about this severe hypersensitivity reaction and withdrawal of the suspected medications along with supportive care is an important treatment approach. Though rare this reaction has been reported with paracetamol, hence a very high level of suspicion is required by the physician to relate paracetamol with SJS when such a reaction is encountered.

Acknowledgement

I express my thanks to National Coordination Centre-Pharmacovigilance Programme of India (PvPI) Indian pharmacopoeia commission, Ministry of health & Family welfare, Govt. of India for their guidance and support.

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