



STEVENS-JOHNSON SYNDROME WITH FLU-LIKE SYMPTOMS CAUSED BY AN UNPREDICTABLE ADVERSE REACTION TO CEFEPIME

Dr. D.Reddy Varaprasad babu*

Assistant professor, department of pulmonology, Sree Lakshmi Narayana Institute of Medical Sciences, Pondicherry, India.

ABSTRACT

Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) are mucocutaneous cell-mediated hypersensitivity reactions that are relatively infrequent, but potentially fatal, and are frequently produced by drugs. Fever, malaise, facial puffiness, mucous membrane eruptions, skin lesions, vomiting, and skin eruptions are all symptoms of SJS and TEN. SJS and TEN have incidences of 0.4-1.2 per million and 1.2-6 per million person-years, respectively. A 28-year-old female patient has a history of left-sided pain. Anti-tubercular medication was started for the lateral pleural effusion. (ATT) [Isoniazid, rifampicin, pyrazinamide, and pyrazinamide tablet (presentation:)] for a month at a local hospital. Even though the Patient was non-compliant with treatments and acquired ATT as a result. We present a rare instance of phenytoin-induced SJS that was made worse by cefepime treatment. In our research of the literature, we couldn't discover any examples of such unusual reactions. The interaction of nucleophilic groups with lysine amino groups of proteins to create cephalosporin proteins could be a plausible cause of SJS aggravation. The mechanism of this pharmacological interaction, however, is unknown at this time. Cefepime should therefore be used with caution in patients who have previously experienced drug-induced SJS.

Key words Phenytoin, Stevens - Johnson Syndrome, Cefepime.

INTRODUCTION

Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) are mucocutaneous cell-mediated hypersensitivity reactions that are relatively infrequent, but potentially fatal, and are frequently produced by drugs [1, 2]. Fever, malaise, facial puffiness, mucous membrane eruptions, skin lesions, vomiting, and skin eruptions are all symptoms of SJS and TEN [3, 4]. SJS and TEN have incidences of 0.4-1.2 per million and 1.2-6 per million person-years, respectively [5, 6]. Adults are most typically prescribed phenytoin as an antiepileptic medication [7, 8]. 14 people with SJS related with phenytoin consumption were described in a case-control study of 73 patients on anti-epileptic medications [9]. In a 10-year retrospective analysis of 127 patients in a hospital, eight patients took anti-epileptic medicines, and the

incidence of phenytoin-induced SJS was determined to be 13.04 percent (six patients) [10]. We present the case of a 28-year-old woman who experienced phenytoin-induced SJS, which was aggravated by cefepime treatment.

Case presentation:

A 28-year-old female patient has a history of left-sided pain. Anti-tubercular medication was started for the lateral pleural effusion. (ATT) [Isoniazid, rifampicin, pyrazinamide, and pyrazinamide tablet (presentation:)] for a month at a local hospital. Even though the Patient was non-compliant with treatments and acquired ATT as a result. 138 IU/L aspartate aminotransferase caused hepatitis 330 IU/L for alanine transaminase. one episode of generalized anxiety disorder. 110 months after the cessation of tonic-

Corresponding Author :- **Dr. D.Reddy Varaprasad babu**

clonic seizures (GTCS).

Medication for ATT. She was given a phenytoin loading dose. She was airlifted to a tertiary care facility in southern India for the sake of future management. On the first day, at the emergency room presentation, the patient Tab was used to treat a seizure that had occurred. At night, take 300 mg of phenytoin. On the second day, the patient experienced another episode of GTCS, Tab. 300 milligrams of phenytoin pleural effusion was controlled with injections. Amikacin, Ethambutol 800 mg and 500 mg on the third day, the patient experienced a minor headache. She had a fever of 39.5 degrees Celsius, itching, and an erythematous rash all over her body. Tab was used to treat her fever. 50 mg paracetamol, in tab was added to 25 mg hydroxyzine, calamine lotion, and tab embramine 25 mg is used to treat erythematous rashes. Tab. Due to a rash and a tab, phenytoin was discontinued. Levetiracetam The bid for 500 mg was launched. On day 4, the patient experienced mouth ulcers as well as generalized skin irritation. SJS was suspected as the cause of the rash. Tab. The use of paracetamol was discontinued. As well as inj. 25 mg pheniramine maleate, inj. Hydrocortisone. The dosage was increased to 100 mg, and the oral ulcer was treated with choline salicylate and candid mouth paint on the sixth day, The patient's condition did not change. Inj. Hydrocortisone Tab was used in place of 100 mg. 6 mg methylprednisolone as well as tab Tab with levetiracetam embramine 5 mg was also used. There were no new complaints from day 7 to day 19, and the rash was getting better. The same drugs were kept in place. On Inj. on day 16 For managing cefepime 1 g infusion was begun. Multidrug resistance causes a urinary tract infection (UTI). Klebsiella/Escherichia coli (MDR) On the twentieth day, the patient Her skin was peeling profusely all over her body. Then there's skin pigmentation and scaling to deal with. The patient was given the same medications and was admitted to the intensive care unit. Inj. For MDR management, tigecycline 50 mg bid was given Acinetobacter Bahmani and tab. In was used instead of prednisolone. 40 mg methylprednisolone on the 21st day, inj. The infusion of cefepime (1 g) was terminated. Lesions on the skin worsened, despite the fact that her doctor had predicted that her illness would worsen. Steroids are being tapered. The patient's condition was on day 22. On the 25th day, inj. 40 mg methylprednisolone was modified to Tablets of 40 mg silver, unimproved and maintained with a saline compressor paraffin gauze dressing and sulphadiazine cream on that particular day tab. 29 The dose of methylprednisolone was reduced from 40 mg to 20 mugs to 32 mg There were no new lesions on the skin, and they appeared to be healing. On day 30, a skin sample revealed interface dermatitis with keratosis mugs versicolor is a kind of pityriasis. tab on the 31st day methylprednisolone. On day 34, the dose was reduced to 24 mg, then to 20 mg. On day 48, the patient developed a recurrent UTI, which necessitated a urine culture. Pseudomonas was found to be sensitive to cefepime. On

day 49, the patient received a cefepime test dosage and was monitored. Any indications of SJS were noticed. When there are no negative side effects. When this happened, a full dose of cefepime (1 g) was given. She felt a burning sensation on both upper arms 2 hours later. The limb and the epigastrium There were no new complaints on day 51, and the patient had improved. As a result, she was scheduled for release.

DISCUSSION:

The patient was admitted to the emergency room for treatment. 2 days after using GTCS, I had itching erythematous rashes following the ingestion of 300 mg of phenytoin It's a type that comes later. Hypersensitive response The patient was first exposed to 1 week before admission to a nearby hospital, i.e. phenytoin our medical centre. According to a case-control study, the short term. For a long time, phenytoin use has been linked to an increased risk of SJS and TEN. A time span of less than eight weeks in this situation, the harmful substance is should be revoked. The interval between the first and second administrations. In the majority of cases, the development of SJS/TEN takes 1-4 weeks the cases. It was discovered in a clinical investigation that the onset of after 10 days of Phenytoin treatment, the patients were exposed to the occurrence of in was developed on the basis of consumption in a patient. It was developed on the basis of consumption in our patient. It was present on the third [7] day after Phenytoin administration, lasted one week and was taken off the market on the same day that it was developed of haste There were no new complaints until day 19, but the skin was irritated. There was a rash evident. She suffered skin problems on day 20. Evening peeling and return of lesions, followed by Skin pigmentation and scaling were discovered, and the patient was moved to intensive care unit. All drugs were stopped, but the lesions got worse. As a result, steroid tapering was planned, which proved to be successful. This patient would benefit from it. That was our experience as well both reported on this. The skin biopsy exhibited pityriasis versicolor and interface dermatitis. a research paper. Glucocorticoids are glucocorticoids, according to the author. She was administered i.e., antibiotics in cases when the biopsy was paucicellular. 40 mg methylprednisolone every 8 hours for 5 days She didn't do anything for the next two days. Tab was given to him. 40 mg methylprednisolone, tapered to Over the next five days, take 32 mg, 24 mg for three days, and 20 mg for four days. 16 mg for two days, 12 mg for four days, 8 mg for two days, and 4 mg for four days for six days The patient's condition improved, and no lesions were discovered. As a result, the patient was scheduled for discharge.

CONCLUSION:

We present a rare instance of phenytoin-induced SJS that was made worse by cefepime treatment. In our research of the literature, we couldn't discover any examples of such unusual reactions. The interaction of nucleophilic groups with lysine amino groups of proteins to create cephalosporin proteins could be a plausible cause

of SJS aggravation. The mechanism of this pharmacological interaction, however, is unknown at this time. Cefepime should therefore be used with caution in patients who have previously experienced drug-induced SJS.

REFERENCE:

1. Morales ME, Purdue GF, Verity SM, Arnoldo BD, Blomquist PH, *et al.* Ophthalmic Manifestations of Stevens-Johnson Syndrome and Toxic Epidermal Necrolysis and Relation to SCORTEN. *Am J Ophthalmol.* 150(4), 2010, 505-510.
2. Kim MJ, Lee KY, *et al.* Bronchiolitis obliterans in children with Stevens-Johnson syndrome: follow-up with high resolution CT. *Pediatr Radiol.* 26(1), 1996, 22-5.
3. Chopra A, Drage LA, Hanson EM, Touchet NL, *et al.* Stevens-Johnson syndrome after immunization with smallpox, anthrax, and tetanus vaccines. *Mayo Clin Proc.* 79(9), 2004, 1193-6.
4. Kühn-Córdova I, Ramírez-Bouchan D, Gamboa-Marrufo JD, *et al.* Uso de inmunoglobulina intravenosa en el tratamiento de necrólisis epidérmica tóxica y síndrome de Stevens-Johnson. *An Pediatr (Barc).* 67(1), 2007, 68-73.
5. Wong A, Malvestiti AA, Hafner Mde F, *et al.* Stevens-Johnson syndrome and toxic epidermal necrolysis: a review. *Rev Assoc Med Bras.* 62(5), 1992, 468-73.
6. Valeyrie-Allanore L, Wolkenstein P, Brochard L, Ortonne N, Maître B, Revuz J, Bagot M, Roujeau JC, *et al.* Open trial of ciclosporin treatment for Stevens-Johnson syndrome and toxic epidermal necrolysis. *Br J Dermatol.* 163(4), 2010, 847-53.
7. La Grenade L, Lee L, Weaver J, Bonnel R, Karwoski C, Governale L, Brinker A, *et al.* Comparison of reporting of Stevens-Johnson syndrome and toxic epidermal necrolysis in association with selective COX-2 inhibitors. *Drug Saf.* 28(10), 2005, 917-24.
8. Harr T, French LE, *et al.* Stevens-Johnson syndrome and toxic epidermal necrolysis. *Chem Immunol Allergy.* 97, 2012, 149-66.
9. Morelli MS, O'Brien FX, *et al.* Stevens-Johnson Syndrome and cholestatic hepatitis. *Dig Dis Sci.* 46(11), 2001 Nov, 2385-8.
10. Shilad A, Predanic M, Perni SC, Houlihan C, Principe D, *et al.* Human immunodeficiency virus, pregnancy, and Stevens-Johnson syndrome. *Obstet Gynecol.* 105(5 Pt 2), 2005, 1254-6.