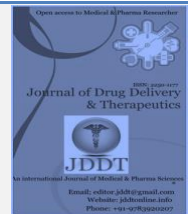


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Case Report

## Toxic Epidermal Necrolysis: A Case Report to Oral Acyclovir

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### Abstract

SJS/TEN is a rare, potentially life threatening, immune-complex-mediated cutaneous adverse drug reaction. Almost one-third of cases are idiopathic. This syndrome is associated with drug treatment as well as infectious agents, neoplasia, and connective tissue diseases. Here we report a 36-year-old male presenting with toxic epidermal necrolysis after 2 days of oral acyclovir.

**Keywords:** Toxic epidermal necrolysis; Stevens-Johnson Syndrome; acyclovir

## INTRODUCTION

Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) are rare, potentially life threatening, immune-complex-mediated cutaneous adverse drug reaction that affect the mucocutaneous surfaces by causing necrosis and detachment of the epidermis. The difference between SJS and TEN is in the percentage of the body surface area (BSA) affected. TEN is known to affect greater BSA than SJS.<sup>1</sup> SJS is more common than TEN.<sup>2</sup> The present understanding of SJS/TEN suggests as an immune-driven pathway mediated by granulysin released by drug-specific cytotoxic CD8 T-cells and natural killer cells.<sup>3</sup> This syndrome is associated with drug treatment as well as infectious agents, neoplasia, and connective tissue diseases. Common drugs associated with SJS/TEN include antibiotics, anti-convulsive agents, nonsteroidal anti-inflammatory agents, anti-tubercular drugs.<sup>4</sup> This way SJS/TEN associated with various medications, instead till date there are very limited literature linking this syndrome with anti-viral agents. Here, we present a case with 36-year-old patient who developed TEN after the use of oral acyclovir for Herpes Zoster infection.

## CASE DESCRIPTION

A 36-year-old male patient was admitted to the emergency department with the complaints of fever with chills, patchy hemorrhagic red color rashes all over body, exfoliation of skin. He had been prescribed a 7-day course of tablet acyclovir 400mg (thrice a day) for the treatment of Herpes Zoster infection by local clinician. On day 2 of medication, he developed fever with chills, blurred vision, exfoliation of skin, patchy hemorrhagic red color rashes all over body, areas of skin peeling with painful erosions. No significant drug allergy as of his past medical history. On admission day 3, cutaneous examination revealed dusky-red purpuric macules on anterior and posterior part of trunk and thighs and multiple flaccid blisters over the body. Nikolsky's sign was positive. Multiple flaccid blisters with positive Asboe-Hansen sign were noted. Hemorrhagic crusting of lips, oral cavity, mucopurulent conjunctival discharge. Laboratory investigations notable for raised leukocytosis, urea levels, Erythrocyte Sedimentation Rate.



Figure 1: Asboe-Hansen sign



Figure 2: erosions with haemorrhagic crusting involving lips, oral and nasal mucosa



Figure 3: Multiple dusky-red purpuric macules with blisters over lower extremities

Initial management involved immediate discontinuation of acyclovir, supportive care, adjunctive corticosteroid therapy. Intravenous dexamethasone 8mg, Pheniramine Maleate 2ml for consecutive couple of days. In addition, a potent topical steroid, ocular lubricant as ointment and eye drops were advised. Optimal hydration and nutritional status were maintained with intravenous fluids. Daily regular wound care was done. After a period of 11 days patient condition got improved.

## DISCUSSION

Causality assessment was 'probable' according to Naranjo Probability Scale (score=5), 'probable/likely' as per the WHO-

Uppsala Monitoring Centre criteria. The prognosis calculated as per SCORTEN score is 3, that corresponds mortality rate of 35%. The body surface area is calculated using Lund-Browder chart. The patient had an involvement of neck -2% (front and back), anterior and posterior trunk (26%), upper limbs both anterior and posterior (14%), thigh both anterior and posterior (19%) resulting in a total surface area of 61%. As SJS and TEN indicate the same instead, are differentiated based on severity of skin involvement. If the condition is less than 10% body surface area involvement would be termed as SJS, whereas if it 10-30% body surface area involvement could be termed as

SJS/TEN overlap and more than 30% body surface area involvement termed as TEN<sup>5</sup>.

However, re-occurrence with the use of same or similar group of drugs could occur. Patients need to be counseled for future drug avoidance. In our case, patient was given immediate supportive therapy which involves fluids, nutritional plan, wound management along with adjunct systematic glucocorticoids helped the patient to recover from the clinical condition.

We highlight a rare adverse cutaneous drug reaction to commonly prescribed anti-viral drug acyclovir; there by adding to the expanding list of associated with SJS/TEN.

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