

(CASE REPORT)



A case report of Steven Johnson's Syndrome (SJS) /Toxic Epidermal Necrolysis(TEN) overlap caused by Nimesulide

Chirag U Nayee and Amita R Kubavat *

Department of Pharmacology, Pandit Dindayal Upadhyay Medical College and Hospital, Rajkot-360051, India.

World Journal of Biology Pharmacy and Health Sciences, 2024, 18(02), 154–156

Publication history: Received on 19 February 2024; revised on 06 April 2024; accepted on 08 April 2024

Article DOI: <https://doi.org/10.30574/wjbphs.2024.18.2.0125>

Abstract

Introduction: Stevens–Johnson Syndrome (SJS) and Toxic Epidermal Necrolysis (TEN) are rare, acute and life-threatening mucocutaneous diseases that are nearly always drug-related. Incidence of SJS and TEN is 0.05 to 2 persons per million populations per year. In India, Nimesulide is easily available as an over the counter drug (OTC), different cutaneous reactions associated with, Nimesulide including angioedema, maculo-papular rash, severe urticaria, pityriasis rosea and worsening of preexisting psoriasis.

Patient concern (Case summary): A 17 years old female patient complained about fever and she was prescribed with Tab.Nimesulide twice daily by private practitioner. On the 3rd day of intake of oral Nimesulide, patient developed skin lesions over face, trunk, back and all four limbs. This reaction was diagnosed as Stevens–Johnson Syndrome (SJS) and Toxic Epidermal Necrolysis (TEN) overlap by Nimesulide based on clinical picture and drug history.

Interventions: Tab. Nimesulide was stopped and patient was admitted in dermatology ward. Patient was treated with Inj.Hydrocortisone sodium succinate 100mg iv twice daily, Inj.Cefotaxime 1gm iv thrice a daily, Inj. Metronidazole 500mg once a day and Liquid Cyclosporine 50mg twice a day for 10days. Other treatments included Inj. Albumin 100ml i.v slowly for 3 days given. Patient recovered and was discharged after 10 days.

Conclusion: We are presenting a case of SJS-TEN overlap caused by Nimesulide, which is commonly used as an over the counter drug (OTC). Our aims to minimize this type of serious ADR by making alert to physicians and other healthcare professionals, we can avoid hospital admissions because of ADR, reduce economic burden of the patients and health related quality of life of the patient can be improved.

Keywords: SJS; TEN; Nimesulide; Cutaneous reactions.

1. Introduction

Adverse Drug Reactions (ADR) accounts 6% of the total hospital admission, increases economic burden on healthcare system, results into withdrawal of drugs from market and death.¹ Among various ADR, cutaneous drug reactions mainly Stevens Johnson Syndrome (SJS) and Toxic Epidermal Necrolysis (TEN) are rare but potentially fatal reactions that endangers patient's life.¹ It is nearly always drug-related.² Incidence of SJS and TEN is 0.05 to 2 persons per million population per year.³ In India, Nimesulide is easily available as an over the counter drug (OTC), different cutaneous reactions associated with, Nimesulide including Angioedema, maculo-popular rash, severe urticaria, pityriasis rosea and worsening of preexisting psoriasis.⁴ Indian government restricted its use in 2011 for paediatric purposes in the age group of less than 12 years⁴. Hereby presenting a case of SJS/TEN overlap due to Nimesulide.

* Corresponding author: Amita R Kubavat.

2. Case description

A 17 years old female patient complained about fever and she was prescribed with Tab.Nimesulide twice daily by private practitioner. On the 3rd day of intake of oral Nimesulide patient developed skin lesions over face, trunk, back and all four limbs. Skin lesions are multiple reddish fluid filled which ruptured to form erosions, diffuse multiple hyperpigmented papules, vesicles, and bulla. Skin lesions were seen all over the body including face. TEN like peeling of skin over trunk, back, and all four limbs was presented. (Fig-1)

Tab. Nimesulide was stopped immediately and patient was admitted in skin ward. Patient was treated with Inj.Hydrocortisone sodium succinate 100mg iv twice daily, Inj.Cefotaxime 1gm iv thrice a daily, Inj. Metronidazole 500mg once a day and Liquid Cyclosporine 50mg twice a day for 10days. Other treatments included Inj. Albumin 100ml i.v slowly for 3 days given.

There was no past history of similar allergic reaction with any drug. Patient recovered and was discharged after 10 days.



Figure 1 Widespread, hyperpigmented, irregularly shaped erythematous or purpuric macules (SJS-TEN) all over the body of patient.

3. Discussion

SJS and TEN are consequence of extensive keratinocyte cell death that results in the separation of significant areas of skin at the dermal–epidermal junction, producing the appearance of scalded skin.² An overlap of SJS-TEN has the characteristics of both SJS and TEN.² The precise sequence of molecular and cellular events that lead to the development of SJS/TEN is only partially understood. Cytotoxic T cells expressing the skin-homing receptor, cutaneous lymphocyte-associated antigen (CLA), are seen early in the development of cutaneous lesions. These are likely to be drug-specific cytotoxic T cells.² The most common drugs which cause SJS are sulfonamides, non-steroidal anti-inflammatory drugs, imidazole antifungal, cephalosporins, anticonvulsants, allopurinol and HAART regimen.⁶

4. Conclusion

Because of the serious life threatening consequences, it is important that clinicians are aware of the presentation, diagnostic criteria, and treatment options. Reporting of such events is utmost necessary, efficient pharmacovigilance holds the key in this regard. Our aims to minimize this type of serious ADR by making alert to physicians and other healthcare professionals, we can avoid hospital admissions because of ADR, reduce economic burden of the patients and health related quality of life of the patient can be improved.

Compliance with ethical standards

Acknowledgments

Authors would like to thank Dr. Neela Bhuptani, Professor and head of department, and other staff of department of dermatology, venereology and leprosy, PDU Government Medical College, Rajkot.

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of ethical approval

The study was approved by the Institutional Ethics Committee.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

References

- [1] Miya R, Malpani A K, Keri M, Panagaon R. Drug induced Steven- Johnson Syndrome(SJS). Indian Journal of Pharmacy Practice 2009; 12 (2): 133-35.
- [2] Bolognia J.L, Schaffer J.V, Cerroni L. Dermatology.4th ed. China: Elsevier limited; 2018. p.797.
- [3] Barvaliya M, Sanmukhani J, Patel T, Paliwal N, Shah H, Tripathi C. Drug–induced Stevens-Johnson syndrome, toxic epidermal Necrolysis, and SJS-TEN overlap: A multicentric retrospective study. J Postgrad Med 2011; 57:115-19.
- [4] Raj RT, Kaur B, Lochan KK, Bahl RK. Nimesulide induced Stevens Johnson syndrome (SJS); managed successfully with combined approach of steroids, intravenous immunoglobulin and placentrex gel: A case report. Our Dermatol Online. 2014; 5(4): 384-387.
- [5] Goodman, Gilman, Brunton L.L. Goodman & Gilman’s The Pharmacological Basis of Therapeutics. 13th ed. New York: McGraw-Hill Education;2018.
- [6] Lindquist M. VigiBase, the WHO Global ICSR Database System: Basic Facts. Drug Information Journal. 2008;42(5):409-19. <https://www.vigiaccess.org>