



## Naproxen Induced Toxic Epidermal Necrolysis: A Case Report

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**Abstract:** A potentially fatal illness known as toxic epidermal necrolysis (TEN) is marked by severe exfoliation of the mucous membrane and epidermis, which can lead to sepsis and death. In our case we observed a female, who was admitted to tertiary care as she developed low grade, intermittent fever accompanied with body ache and joint pain. Fever was not accompanied with chills and rigors. She consulted a local doctor for the same and was suspected a case of Chikungunya. She was prescribed oral medications [Tab. HCQ (200mg) and Tab. Naproxen (500mg)]. Later on, she developed itching and red colored skin lesions with burning sensation. We concluded that appropriate counselling can lead to successful outcome of the treatment. By doing that severe adverse reactions can be prevented.

**Keywords:** Naproxen, Toxic epidermal necrolysis, skin rash, itching.

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## INTRODUCTION

Naproxen, an NSAID with analgesic, anti-inflammatory, and antipyretic effects, is a propionic acid derivative. Its exact method of action is unknown; however, it probably involves reversible COX-1 and COX-2 enzyme inhibition, which reduces the production of prostaglandin precursors [1]. Many non-steroidal anti-inflammatory medicines (NSAIDs) have the unwanted side effect of frequently causing skin rashes and eruptions. This issue is so serious that it frequently results in patients ceasing their treatment with specific NSAIDs. Although the occurrence of rashes from NSAIDs may have the relatively mild outcome of being merely inconveniences and unpleasant to live with, it is important to understand that these manifestations may in some people with undefined susceptibilities have potentially serious consequences, such as toxic epidermal necrolysis and Stevens-Johnson syndrome, which are frequently fatal [2]. Here, we found the same case with Naproxen. Other adverse effects of naproxen are mentioned in Table 1.

## CASE HISTORY

A 49-year-old, female was admitted to tertiary care hospital with complaints of burning sensation. Patient was relatively asymptomatic few days ago. Then she developed low grade, intermittent fever accompanied with body ache and joint pain. Fever was not accompanied with chills and rigors. She consulted a local doctor for the same and was suspected a case of Chikungunya. She was prescribed oral medications [Tab. HCQ (200mg) and Tab. Naproxen (500mg)]. Later on, she developed itching and red colored skin lesions with burning sensation. A day later, she developed excessive watering in both eyes with yellowish discharge and fluid filled lesions over back, both arms and abdomen. Naproxen was stopped and thereafter no new skin lesions were seen. She was a known case of Diabetes Mellitus II for 3 years. She was on regular medications.

## DISCUSSION

Naproxen is a commonly prescribed NSAID. It is used to relieve pain from various conditions

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such as headache, muscle aches, dental pain and menstrual cramps. The most frequent reactions are pruritus, urticaria, morbilliform rashes, and photosensitivity [3]. In this case she was prescribed 500 mg of Naproxen as a treatment for fever and joint pain. Although the dose was appropriate, a rare case of severe rash over whole body was seen. Hereby, it suggests that counselling can help avoid

such adverse reactions; by properly counselling the patient regarding various adverse reactions of drug after prescribing. Proper monitoring of any symptoms of adverse reaction is also mandatory in order to avoid such serious ADRs.

### Adverse Effects

**Table 1: Adverse reactions of Naproxen [4]**

Common adverse reactions	
Cardiovascular	Edema (3% to 9%)
Dermatologic	Ecchymosis (3% to 9%), Pruritus (3% to 9%), Rash (3% to 9%)
Gastrointestinal	Abdominal pain (3% to 9%), Constipation (3% to 9%), Heartburn (3% to 9%), Nausea (3% to 9%)
Neurologic	Dizziness (3% to 9%), Headache (3% to 9%), Somnolence (3% to 9%)
Otic	Ototoxicity (3% to 9%), Tinnitus (3% to 9%)
Respiratory	Dyspnea (3% to 9%)
Serious adverse reactions	
Cardiovascular	Body fluid retention, Congestive heart failure, Hypertension, Myocardial infarction, Vasculitis
Dermatologic	Erythema multiforme, Erythroderma, Stevens-Johnson syndrome, Toxic epidermal necrolysis
Endocrine metabolic	Hyperkalemia
Gastrointestinal	Gastrointestinal hemorrhage, Gastrointestinal perforation, Gastrointestinal ulcer, Hematemesis, Inflammatory bowel disease, Pancreatitis (less than 1%)
Hematologic	Agranulocytosis (less than 1%), Anemia, Aplastic anemia, Granulocytopenic disorder, Hemolytic anemia, Hemorrhage, Thrombocytopenia (less than 1%), Thrombosis
Hepatic	Hepatitis, Hepatotoxicity, Increased liver function test, Jaundice (less than 1%), Liver failure
Immunologic	Anaphylaxis, Drug reaction with eosinophilia and systemic symptoms
Neurologic	Aseptic meningitis, Cerebrovascular accident, Seizure
Renal	Acute renal failure, Nephritis, Nephrotic syndrome, Nephrotoxicity, Renal failure
Respiratory	Bronchospasm, Pulmonary edema
Other	Angioedema

## CONCLUSION

Appropriate counselling is necessary for successful outcome of the treatment. In order to prevent such adverse reactions, close monitoring during treatment and careful management of all patients taking this medication is compulsory. This also suggests that counselling plays a major role to prevent such adverse reactions.

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### Abbreviations

ADR: Adverse Drug reaction; NSAID: Non-steroidal Anti-inflammatory Drug

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