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Stevens-Johnson Syndrome (SJS) and Toxic Epidermal Necrolysis (TEN) are **rare** but **life-threatening** mucocutaneous drug reactions, with a global incidence of approximately 1 to 10 people per million per years¹⁻². Common triggers include anti-epileptic allopurinol, antibiotic, and NSAIDs. Antibiotics alone contribute to up to 28% of SJS/TEN cases worldwide.¹

In the emergency department (ED), early features such as fever, rash, and mucosal ulcers are easily mistaken for sepsis or viral illness, resulting in low clinical suspicion and delayed diagnosis. Without timely recognition and withdrawal of the offending drug, mortality may exceed 35%, particularly in high-risk patients.

Early identification in the ED is critical and potentially lifesaving.

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CASE DESCRIPTION

A 52-year-old male with genetic haemochromatosis, alcoholic liver disease, and a history of recurrent herpes simplex encephalitis presented to the ED after a collapse with witnessed seizure and fever of 40.1°C. He was pre-alerted by ambulance as a suspected sepsis case, given his immunocompromised background and high fever.

Initial Vitals:

- BP: 116/78 mmHg
- HR: 137 bpm
- RR: 26 breaths/min
- SpO₂: 98% on room air

Initial Blood Results:

- WCC: 2.1 × 10⁹/L
- Platelets: 56 × 10⁹/L
- Lymphocytes: 0.8 × 10⁹/L
- CRP: 18 mg/L



Photo courtesy of Dan Stulberg, MD. This case was adapted from: Milana, C. Smith M. Hypersensitivity syndromes. In: Usatine R, Smith M, Mayeaux EJ, et al., eds. The Color Atlas of Family Medicine. New York, NY: McGraw-Hill; 2009:750-755

Clinical Findings in ED:

Erythematous to **violaceous maculopapular rash** involving chest, back, bilateral UL and feet. He also had **multiple oral ulcers and bilateral conjunctivitis**. CNS examination unremarkable and no clear meningeal signs or focal neurology.

Further history revealed that lamotrigine 25 mg OD had been started three weeks prior for post-encephalitic epilepsy. He also had a penicillin allergy.

THE DIAGNOSTIC DILEMMA IN ED

The Initial working diagnosis: sepsis secondary to HSV encephalitis. ED team raised early concern for SJS based on:

1. Lamotrigine use
2. Mucosal involvement
3. Atypical rash morphology

However, the admitting medical team continued to prioritise infectious causes, particularly viral encephalitis. Sepsis treatment was initiated with intravenous acyclovir and broad-spectrum antibiotics (*meropenem*), given the patient’s penicillin allergy.

Within five days, the patient deteriorated rapidly with >40% body surface area (BSA) skin detachment, confirming Toxic Epidermal Necrolysis (TEN). UK hospital guidelines for SJS/TEN were implemented; however, he died from multi-organ failure.

DISCUSSION

The Tension: Two Fatal Diagnoses, One Chance to Intervene

Sepsis and SJS/TEN are both life-threatening but require opposite management strategies:

Sepsis → IV acyclovir + broad-spectrum antibiotics (some may trigger/worsen SJS/TEN)

SJS/TEN → Immediate drug withdrawal + supportive care + urgent referral

Despite early suspicion of SJS in ED, treatment focused on presumed infection. **This diagnostic conflict led to delay.** By the time >40% BSA was involved, the diagnosis had progressed to TEN. A high **SCORTEN** score predicted poor prognosis. Although guideline-based care was initiated, the window for effective intervention had closed.

3M

“3Ms” for Early SJS/TEN Detection

- Mucosa:** Involvement of oral, ocular, or genital
- Morphology:** Dusky, targetoid, or blistering rash
- Medication:** Recent exposure to a high-risk drug

CONCLUSION

This case illustrates how early warning signs of SJS/TEN can be overshadowed by anchoring bias toward more common diagnoses like infection. **Recognition of mucocutaneous patterns and structured tools like the 3Ms can support ED physicians in identifying rare but deadly drug reactions earlier.**

REFERENCES

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