

Toxic epidermal necrolysis

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The case

A 36-year-old lady presented with history of intermittent high-grade fever for the last 5 days. There was also history of yellowish discolouration of skin and sclera for the last 3 days, generalized body swelling and hemorrhagic rashes all over the body for the last 1 day. On further probing it was found that she had received an unknown intravenous antibiotic 2 days back from a local physician. She was intubated and mechanically ventilated as she became hypoxic due to airway edema. Other supportive measures were administered. The skin lesions initially presented as erythematous rashes, which over the next few days progressed, to urticarial plaques, bullae, followed by epidermal sloughing. A diagnosis of toxic epidermal necrolysis secondary to idiosyncratic drug reaction was made.

Discussion

Toxic epidermal necrolysis (TEN) and Stevens Johnson syndrome (SJS) are severe adverse cutaneous drug reactions that predominantly involve the skin and mucous membranes. Both are rare, with TEN and SJS affecting approximately 1-2/1,000,000 annually, and are considered medical emergencies as they are potentially fatal. (1) The most common cause of TEN is idiosyncratic

drug reaction, although viral, bacterial, and fungal infections, as well as immunization, have been described. The drugs most frequently involved are nonsteroidal anti-inflammatory agents, chemotherapeutic agents, antibiotics, and anticonvulsants. (2,3)

The pathogenesis of TEN is still not fully clear. The widespread epidermal death is thought to be a consequence of keratinocyte apoptosis. (4) A pivotal role of cytotoxic T lymphocytes has been suggested. (2) The clinical course of TEN is characterized by a prodromal phase with influenza-like symptoms followed by intense erythema, urticarial plaques, and bullae which progress over a day or two to a more generalized epidermal slough. (2) There is often severe involvement of the mucosal surfaces that may precede the skin lesions. Progressive neutropenia and thrombocytopenia may develop within a few days and, together with septic complications, may lead to multiorgan failure and death. (5)

Management of TEN is mainly supportive and the survival rate improves when the patient is managed in a burns unit or in the intensive therapeutic unit. (6,7) The role of systemic steroids is controversial and there is no evidence to suggest that it is beneficial in TEN. (8)

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Figure1. Generalized urticarial plaques more pronounced in extremities



Figure 2. Urticarial plaques involving the trunk sparingly



Figure 3. Epidermal sloughing in gluteal region 15 days post admission



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