Drug-Induced Epidermal Necrolysis (DEN)

Delayed-type hypersensitivity reaction to drugs or their metabolites resulting in a **severe mucocutaneous blistering eruption**

PATHOPHYSIOLOGY

- Drugs or drug metabolites bind to T cell receptors → CD8+ T cells activated
- These cells release cytotoxins leading to keratinocyte apoptosis
- Common drug culprits: anticonvulsants, antibiotics (especially sulfonamides and β-lactams), and nonsteroidal anti-inflammatory drugs

DIFFERENTIAL DIAGNOSIS

- Reactive infectious mucocutaneous eruption (RIME)
- Autoimmune blistering diseases (pemphigus vulgaris, linear IgA bullous dermatosis, bullous pemphigoid)
- Drug reaction with eosinophilia and systemic symptoms

DIAGNOSIS

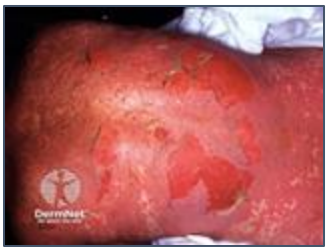
Clinical. Can be confirmed by **skin biopsy**

https://dermnetnz.org/images?query=stevens-johnson%20syndrome

PRESENTATION

History

- Prodrome of fever, malaise, non-productive cough, stinging eyes, and sore throat
- Blistering skin and mucosal lesions occur 24-72 hours later



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PHYSICAL EXAM

Skin

- Ill-defined erythematous macules on the face and torso spread and evolve into purpuric spots and bullae that slough off
- Palmar and plantar erythema and edema

Mucosa

- Oral, ocular, nasal, laryngeal, genitourinary, and anal sites

Systemic effects

- Renal, GI, liver, and lung involvement

Potential complications include:

- Sepsis
- Scarring, dyspigmentation
- Bronchiolitis obliterans
- Urethral strictures, phimosis, urethritis

MANAGEMENT

Prompt transfer to the intensive care unit or burn unit depending on severity and progression

- Determine drug culprit and discontinue
- Supportive care (fluid and electrolyte replenishment, wound care, nutritional support)
- Systemic corticosteroids +/- intravenous immunoglobulin +/- etanercept
- Monitor for and manage secondary infections (frequent application of topical emollients, repeat bacterial cultures)
- Ophthalmology and urology consultation as indicated
- Manage systemic manifestations as indicated

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