

# Clinical Pearls: Dermatology

## Dermatology I

- Psoriasis, pityriasis rubra pilaris, toxic shock syndrome, and drug reactions may cause clinically indistinguishable erythroderma. History is key to making the diagnosis:
  - Personal or family history of psoriasis?
  - Recent illness?
  - Exposure to new medications?
  - Recent withdrawal of systemic glucocorticoids?
- First line treatment for atopic dermatitis involves emollients and topical corticosteroids; avoiding harsh soaps and known allergens is crucial for preventing flares.
- Dermatitis presents acutely with pruritic, erythematous, weeping or crusted plaques; chronic cases show lichenification and scaling.
  - Distribution guides diagnosis:
    - Atopic dermatitis – face and flexural areas (children/adults);
    - Dyshidrotic eczema – lateral fingers, palms, soles;
    - Seborrheic dermatitis – scalp, face (nasolabial folds, eyebrows).
    - Contact dermatitis (allergic/irritant) – areas of direct exposure;
      - Contact dermatitis is frequently identified by the pattern (morphology) and distribution of the eruption.
      - Recurrent or unclear cases of allergic contact dermatitis may benefit from patch testing.
  - Complications include secondary bacterial infection, especially *Staphylococcus aureus* (e.g., honey-colored crusts in atopic dermatitis).
    - Treatment includes emollients – cornerstone of maintenance; topical steroids – low potency for face/folds, higher potency for trunk/extremities;
    - Avoidance – known allergens/irritants; systemic therapy – for refractory cases (e.g., dupilumab for moderate-to-severe atopic dermatitis).
- Venous insufficiency may present with acute or chronic stasis dermatitis (typically bilateral, erythematous, scaling).
  - Complications include lipodermatosclerosis – indurated, fibrotic skin; venous ulcers – usually at the medial malleolus.

- Management includes compression therapy – mainstay of treatment; topical steroids – for stasis dermatitis; Vascular procedures – for refractory cases.
- Leg ulcer differential diagnosis:
  - Venous – medial malleolus, shallow, less painful;
  - Arterial – lateral malleolus/pressure points, sharply demarcated, painful;
  - Neuropathic – plantar surface, painless, often in diabetics.
- Drug reactions:
  - Low-risk drug reactions include morbilliform, urticarial, fixed drug eruption, and AGEP (acute generalized exanthematous pustulosis).
  - More severe or systemic reactions include DIHS/DRESS (drug-induced hypersensitivity syndrome) and SJS/TEN (Stevens-Johnson syndrome/toxic epidermal necrolysis).
  - Common triggers for all these reactions include antibiotics (e.g., sulfonamides, penicillins) and anticonvulsants (e.g., carbamazepine, lamotrigine).
  - Management involves discontinuing the offending drug for all reactions; mild reactions are treated with antihistamines and topical steroids, while severe reactions may require systemic corticosteroids (for DIHS/DRESS) and ICU/burn unit care (for SJS/TEN).
- Acute urticaria presents as transient (<24 hours), pruritic, edematous wheals and is managed with H1 antihistamines.
  - Acne includes comedonal (open and closed) and inflammatory lesions (papules, pustules, nodules), and is treated with topical retinoids, benzoyl peroxide, topical/oral antibiotics, spironolactone (in females), and isotretinoin for severe or scarring cases.
  - Rosacea subtypes include erythematotelangiectatic (facial flushing triggered by heat, sunlight, spicy foods), papulopustular (resembles acne but lacks comedones), ocular (gritty or dry eye sensation), and phymatous (thickened, oily skin, often on the nose).

## Dermatology II

- Seborrheic keratoses are benign, waxy, “stuck-on” appearing lesions that do not require any treatment unless there is diagnostic uncertainty.
- Squamous cell carcinomas that are greater than 2 cm in size, involve named larger diameter nerves, and occur in immunocompromised individuals are more likely to metastasize.

- While topical antifungals are often sufficient for infections on the hands and feet, *tinea capitis* usually requires systemic antifungal agents such as griseofulvin to achieve clearance.
- The most common form of psoriasis is plaque psoriasis – well-demarcated, erythematous, scaly plaques on the scalp, extensor surfaces, and lower back.
  - Other variants include inverse (intertriginous areas), guttate (small, drop-like lesions after group A *streptococcal* infection), and erythrodermic (generalized erythema, after recent systemic steroids).
  - Systemic associations include psoriatic arthritis, cardiovascular disease, and metabolic syndrome.
  - Treatment options range from topical agents (steroids, vitamin D analogs), phototherapy, and non-biologic systemics (e.g., methotrexate), to biologic therapies (e.g., TNF- $\alpha$ , IL-17, IL-23 inhibitors) for moderate-to-severe disease.
- Dermatophyte infections are classified by location: tinea pedis (feet), tinea cruris (groin), tinea capitis (scalp), and tinea manuum (hands). They typically present as pruritic, scaly, annular plaques with central clearing. Treatment involves topical or oral antifungals, primarily azoles and allylamines (e.g., terbinafine).
- Common benign cutaneous neoplasms include warts (HPV-related), corns (pressure-induced hyperkeratosis), skin tags (body fold areas), and seborrheic keratoses (waxy, stuck-on appearance).
  - First-line treatments typically involve cryotherapy or surgical removal, depending on symptoms and patient preference.
- Ultraviolet (UV) exposure is the primary risk factor for actinic keratoses (precancerous, gritty erythematous papules) and skin cancers, including:
  - Squamous cell carcinoma (SCC – firm, pink, ulcerated, crater-like papulonodules);
  - Basal cell carcinoma (BCC – pearly papule with rolled borders and telangiectasias); and
  - Melanoma (typically presents as an asymmetric plaque with irregular borders and color variation).
    - Melanoma subtypes include superficial spreading (most common), nodular, acral lentiginous (main subtype in darkly pigmented skin), and lentigo maligna/lentigo maligna melanoma (usually chronically sun-exposed skin).
  - For suspected skin cancers, biopsy is the first step and guides management (e.g., Breslow depth for melanoma), which may include ED&C, excision, or Mohs surgery, depending on the skin cancer type/features.