Dermatology Block N Quick Points

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Organisms Involved

- **Non bullous Impetigo** - Staph aureus, Streptococcus pyogenes
- **Bullous impetigo** - Staph aureus
- **Cellulitis and Erysipelas** MCC - Streptoccus pyogenes (Group A Streptoccus)
- **Folliculitis**
  MC - Staph aureus
  Gram negative bacteria - usually in patients with acne who are on broad spectrum antibiotics
  Pseudomonas aeruginosa - hot tub Folliculitis (appears 8-48 hours after exposure to contaminated water)
  Chronic Folliculitis caused by being a carrier of staph
- **Genital warts** - HPV 6,11,16,18
- **Condyloma accuminate** - HPV 6, 11
- **Molluscum contagiosum** - DNA pox virus
- **Chicken pox** - VZV (HSV-3)
- **Shingles** - Herpes zoster
- **All tenia infections** (tenia pedis, tenia capitis, tenia corporis) caused by dermatophytes
  Except **tenia versicolor**, caused by Malassezia furfur
- **Acne Vulgaris** - corynebacterium acnes (previously called propionibacterium acnes)
- **Pityriasis rosea** - Reactivation of HHV 6/7 plays a significant role in pathogenesis of disease
- **Pityriasis versicolor** - fungal (Malassezia species)
- **Seborrheic dermatitis** - Malassezia furfur
- **Kaposi sarcoma** - HHV8, Low CD4 count (HIV)
- **Lichen planus** - associated with HBV, HCV
- **Erythema Multiforme** - Herpes simplex (HSV is most common identifiable cause), Mycoplasma infection, HIV

Signs

- Nikolsky sign positive in bullous impetigo, pemphigus valgaris, SJS/ TEN
- Nikolsky sign negative in non bullous impetigo
- Signs in chronic plaque psoriasis - Auspitz sign, koebnerization, candle sign, woronoff sign
- Asboe Hensen sign - SJS/ TEN

Tests Names

- Tzanck smear - for herpes viruses (herpes simplex, varicella/ chickenpox, herpes zoster/ shingles)

Remains latent in

- HSV-1 - trigeminal ganglia
- HSV 2 - sacral ganglia
- VZV - dorsal root ganglia (sensory ganglia)

Most Common

- Most common bacterial skin infection among children - Impetigo
- Most common fungal infection in adults and adolescents - Tinea versicolor
- Most common skin malignancy - basal cell carcinoma
- 2nd most common skin malignancy - Squamous cell carcinoma

Specific Lesions

- HSV 2 - Lesions with punched out appearance that ulcerate after several days in the anogenital area
- Candida infection - well defined erythematous scaly eroded patches with satellite lesion
- Molluscum contagiosum - dome shaped shiny yellowish whitish papule with central umbilication
- Acne - microcomedones are pathognomonic lesions
- Lichen Planus - itchy (rubbing) not scratching pruritic, polygonal, purple flat-topped papule and plaques with Wickham's striae (pathognomonic)
- Bullous Pemphigoid - intensely pruritic eruption with widespread blister formation
- Telangiectasia is only in rosacea, not acne
- Dermatolomyositis - heliotrope rash, gottron's papules
- SJS - Epidermal separation < 10% of body surface area
- TEN - Epidermal separation > 30% of body surface area

Extensor / Flexor surfaces

- Psoriasis - on extensor surfaces such as elbows/knees
- Lichen planus - on flexor surfaces
- Bullous pemphigoid - predominate on flexural aspects of limbs and lower trunk
- Dermatitis herpetiformis - extensor surfaces of elbows/ knees, sacrum, buttocks, scalp

Locations

- Tinea capitis - dermatophyte infection of scalp
- Tinea barbae - dermatophyte infection of beard
- Tinea pedis (Athlete's foot) - dermatophyte infection of foot
- Tinea cruris (jock itch) - dermatophyte infection of groin
- Tinea corporis - dermatophyte infection of body
- Tinea faciei → Non-bearded areas of face
- Tinea manuum → Palms and hands
- Tinea unguium (onychomycosis) → Nails
- Tinea imbricata → Trunk and limbs with concentric rings (Trichophyton concentricum)
- Tinea incognito → Steroid-modified tinea (any site)

Lichen Planus

- itchy (rubbing) not scratching pruritic, polygonal, purple flat-topped papule and plaques with Wickham's striae (pathognomonic)
- Wickham's striae - wedge shaped hypergranulosis
- Saw tooth rete ridges
- Civatte bodies
- Over flexural surfaces of extremities, wrists, legs, lower abdomen and genitalia

Scaly rash MCQs

- Silvery scales + extensor surfaces → Psoriasis
- Greasy scales + scalp/face → Seborrheic dermatitis
- Ring lesion + central clearing → Tinea
- Herald patch → Pityriasis rosea
- Flexural scaly rash + atopy → Atopic dermatitis

Psoriasis Treatment MCQs

- Mild → Topical steroids + Vit D
- Moderate → Phototherapy
- Severe → Methotrexate
- Flexural → Tacrolimus
- Scalp → Tar + steroid
- Arthritis → Methotrexate / Anti-TNF

Drugs Associations

- Exanthematous Drug Eruptions - Aminopenicillins, sulfonamides, cephalosporins, anticonvulsants, Allopuronol, NSAIDs
- Urtricaria - Penicillins, cephalosporins, ACEi, CCB
- Angioedema - ACEi, Penicillins, NSAIDs
- Anaphylaxis - Penicillin
- Phototoxic drugs - Tetracyclines (doxycycline), NSAIDs, Fluoroquinolones
- Photo allergy - Thiazide diuretics, Sulfonamide antibiotics, sulfonylureas, Phenothiazines (all contain sulfur)
- Vasculitis - Penicillins, NSAIDs, Sulfonamides, Cephalosporins
- DRESS (Drug reaction with eosinophilia and systemic symptoms) aka Drug induced hypersensitivity syndrome - Anticonvulsants (Phenobarbital, carbamazepine, phenytoin) and Sulfonamides
- Anticoagulant induced skin necrosis - Warfarin or heparin
- Serum sickness like eruption - Cefaclor (children)
- Drug induced systemic lupus - Procainamide, Hydralazine, Chlorpromazine, Isoniazid, Methyldopa, Quinidine, D-penicillamine, Minocycline
- Drug induced Subcutaneous Lupus - Hydrochlorothiazide, CCBs, Terbinafine, NSAIDs, Griseofulvin (antifungal)

- Drug induced Psoriasis - Terbinafine (antifungal), NSAIDs, Antimalarials used for lupus, ACEi, Lithium, beta blockers
- Acneiform eruptions - corticosteroids, androgens, hydantoins, lithium, progestin-containing OCPs
- Drug induced Pemphigus valgaris - Penicillamine, captopril, anti epileptic (Phenytoin, carbamezepine)
- Drug induced bullous pemphigoid - Diuretics (furosemide), D-penicillamine, Antibiotics (amoxicillin, ciprofloxacin), potassium iodide
- Drug induced acne - steroids, iodides, bromides, INH, lithium, Phenytoin, cetuximab
- SJS - Allopurinol, Antibiotics (Trimethoprim sulfamethoxazole, Sulfonamides), NSAIDs, Anticonvulsants

Autoimmune

- Pemphigus group - autoantibodies against desmosomes in epidermis and Mucosal surface - antibodies will target Desmoglein 1 and Desmoglein 3
- Pemphigoid - autoantibodies against hemidesmosomes - in basement membrane zone - antibodies will target BPAg1 and BPAg2
- IgG - in pemphigus vulgaris and bullous pemphigoid
- IgA - in linear IgA bullous disease
- Pemphigus vulgaris
  Mucosal type - desmoglein 3
  Mucocutaneous type - desmoglein 3 and 1
- IgA pemphigus - IgA autoantibodies directed against keratinocyte cell surface (not desmoglein)
- Paraneoplastic pemphigus - IgG, C3, IgA
- Dermatitis herpetiformis (cutaneous manifestation of celiac disease) - IgA autoantibodies against transglutaminase
- Anti centromere - markers for CREST
- Scl-70 antibody - for scleroderma
- Anti dsDNA - for SLE
- Anti Histone - for drug induced lupus

Drug Eruptions

Exanthematous (Morbilliform) Drug Eruption

- Most common drug rash
- Onset: 5–14 days after drug exposure
- Appearance: Symmetric erythematous maculopapular rash
- Starts on trunk → spreads to limbs
- No mucosal involvement
- Mild fever ± pruritus
- Common drugs
  - Penicillins, cephalosporins
  - Sulfonamides

    - Antiepileptics
- 👉 Management: Stop drug, antihistamines
- 👉 Not life-threatening

Urticaria (± Angioedema)

- Type I (IgE-mediated) hypersensitivity
- Onset: Minutes to hours
- Lesions: Wheals, transient, itchy
- Individual lesions last <24 hours
- May have angioedema (lips, eyelids)
- Common drugs
    - Penicillin
    - NSAIDs
    - Radiocontrast media
- 👉 May progress to anaphylaxis
- 👉 Treat with antihistamines ± steroids

Anaphylaxis

- Medical emergency
- Type I hypersensitivity
- Onset: Immediate
- Triad:
    - Hypotension
    - Bronchospasm
    - Urticaria / angioedema
- Common triggers
    - Penicillin
    - Contrast media
    - Latex
- NSAIDs
- 👉 Drug of choice: IM Epinephrine (Adrenaline)
- 👉 MCQ trap: NOT antihistamines first

Fixed Drug Eruption (FDE)

- Onset: Hours after drug intake
- Lesion: Well-defined round/oval dusky patch
- Recurs at same site on re-exposure
- Leaves post-inflammatory hyperpigmentation
- Mucosa (lips, genitalia) commonly involved
- Common drugs
    - Sulfonamides
    - Tetracyclines
    - NSAIDs
- 👉 Pathognomonic feature: Same site recurrence

Acute Generalized Exanthematous Pustulosis (AGEP)

- Pustular + fever = think AGEP
- Onset: 1–2 days after drug
- Numerous non-follicular sterile pustules
- On erythematous base
- Associated with fever + neutrophilia
- Rapid resolution after drug withdrawal
- Common drugs
    - Beta-lactam antibiotics
    - Macrolides
    - Calcium channel blockers
- 👉 NOT psoriasis (common MCQ confusion)

DRESS Syndrome

(Drug Reaction with Eosinophilia and Systemic Symptoms)

- Onset: 2–6 weeks (delayed!)
- Features:
    - Fever
    - Facial edema (edema of face is hallmark of DRESS)
    - Generalized rash
    - Eosinophilia
    - Organ involvement (liver most common)
- Common drugs
    - Phenytoin
    - Carbamazepine
    - Allopurinol
    - Sulfonamides
- 👉 High mortality
- 👉 Treat with systemic corticosteroids

Stevens–Johnson Syndrome (SJS)

- Severe cutaneous adverse reaction
- Skin detachment: <10% BSA
- Painful purpuric macules → blisters
- Mucosal involvement ≥2 sites
- Positive Nikolsky sign
- Common drugs
    - Sulfonamides
    - Antiepileptics
    - NSAIDs
- 👉 Ophthalmic involvement common
- 👉 SJS + TEN differ by BSA

Toxic Epidermal Necrolysis (TEN)

- Dermatologic emergency
- Skin detachment: >30% BSA
- Looks like extensive burns
- Severe mucosal involvement
- High mortality
- Common drugs
    - Sulfonamides
    - Antiepileptics
    - Allopurinol
- 👉 Managed in burns ICU
- 👉 SJS/TEN spectrum