Dermatologic Diagnoses 101: Describing Skin Findings, Formulating a Differential
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Morphologic Approach to Skin Rashes
Morphology:
Objective description of skin rash irrespective of clinical history and the presumed underlying pathophysiology

Step #1- Make an OBJECTIVE description of the rash using 6 criteria.

A. Primary appearance
   1. Papule/Plaque: superficially elevated due to increased thickness of epidermis or dermis
   2. Macule/Patch: flat and with coloration change or textural difference
   3. Nodule: elevated by structure deep to surface of skin
   4. Vesicle/Bulla: elevated and with serous >> purulent fluid
   5. Pustule: elevated and with purulent >> serous fluid

B. Secondary feature(s)
   1. Crust and/or Exudate: dry and/or wet serum, blood, or pus? Mixtures of these entities?
   2. Eschar: purple/black non-viable (dead) tissue
   3. Scale: thick (hyperkeratotic), thin (pityriasiform), micaceous, greasy, plate-like, etc.?
   4. Fissure: linear cleft due to epidermal split
   5. Erosion: partial loss of epidermis
   6. Ulceration: complete loss of epidermis, +/- loss of dermis, +/- loss of subcutaneous fat
   7. Atrophy: epidermal (shiny, thin, and wrinkled) or dermal (soft & depressed)
   8. Lichenification: thickened epidermis with accentuated skin lines

C. Shape(s)/Arrangement(s)
   1. Circular
   2. Annular (ring-like)
   3. Rectangular
   4. Linear streaks

D. Color(s)
   1. Red, purple, pink, brown, black, yellow, gray, blue
   2. Erythema? Blanching or non-blanching?

E. Body site(s)
   1. Upper extremities
   2. Lower extremities
   3. Head/Neck
   4. Trunk
   5. Intertriginous areas (axillae, groin, pannus; skin folds)

F. Pattern(s) of involvement
   1. Symmetry
   2. Sun-exposed areas
   3. Segmental
   4. Dermatomal

Above all, BE OBJECTIVE in your physical exam descriptions, using lots of adjectives!
Step #2- Use the morphologic description to select the differential diagnoses for common skin rashes

A. Papulosquamous (elevated and/or scaly) eruptions

1. Psoriasis vulgaris
2. Seborrheic dermatitis
3. Eczematous dermatitis:
   - atopic dermatitis, nummular dermatitis,
   - allergic/irritant contact dermatitis, venous stasis dermatitis
4. Lichen planus
5. Tinea
6. Cutaneous lupus

B. Papular (elevated without scale) and/or pustular (elevated and with purulent fluid)

1. Urticaria (hives)
2. Granuloma annulare
3. Acne vulgaris and acne excoriee
4. Acne rosacea
5. Periorificial dermatitis
6. Tinea (Majocchi’s granuloma)
7. Folliculitis
8. Herpes simplex virus
9. Varicella/Herpes zoster virus
10. Arthropod assault (bug bites)
11. Pustular variants of psoriasis
12. Dyshidrotic dermatitis (old disease)

C. Vesicular (elevated and with serous fluid) +/- crusting, erosions, and ulcerations

1. Herpes simplex virus
2. Varicella/Herpes zoster virus
3. Impetigo
4. Dyshidrotic dermatitis
5. Allergic contact dermatitis
6. Irritant contact dermatitis
7. Phytophotodermatitis
8. Bullous pemphigoid
9. Edema blisters
10. Porphyria
11. Pseudoporphyria

D. Purpuric (red to purple) macules/patches and/or papules

1. Solar purpura
2. Traumatic ecchymosis
3. Pigmented purpuric dermatitis
4. Chronic venous insufficiency
5. Small vessel (leukocytoclastic) vasculitis
6. Large vessel vasculitis
7. Calciphylaxis

E. Non-specific eruptions of macules, papules, pustules, erosions and ulcerations

1. Scabies
2. Pediculosis capitis
3. Arthropod assault (bug bites)
4. Neuropsychogenic dermatitis (self-excoriation)
5. Prurigo nodularis
6. Acne excoriee
Caveats to the Morphologic Approach

A. Exact diagnosis is usually not possible based on morphology alone
B. Never underestimate the importance of a good clinical history
   1. Timing: onset duration, frequency of flares
   2. Exacerbating/alleviating factors
   3. Associated symptoms: itching, burning, pain, pins & needles, etc.
   4. Other relevant past medical history including active medication use

References
   With excellent photographs and diagrams of various common skin diseases, accompanied by brief descriptions of the pathophysiology, laboratory evaluation, and management plan for each disease, this small color textbook is a useful desk reference for any primary care provider.

   An expansive two-volume reference text, this work is used in the didactic curriculum of most dermatology resident training programs.

   A concise reference text, this book is contains brief but useful descriptions of both common and esoteric dermatologic diagnoses.