Diagnosis of Disseminated Pustulosis

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DISSEMINATED PUSTULOSIS

SUBCORNEAL PUSTULES
Superficial planes; often confluent;
- Generalized pustular psoriasis
- Impetigo herpetiformis (pregnancy)
- Acute generalized exanthematic pustulosis

ACUTE & HIGH FEVER

PURPURIC PUSTULES
- Meningococcemia
- Pseudomonas septicemia (before ecthyma)

NON PURPURIC PUSTULES
- Acute endocarditis
- Septicemia
  - S. aureus
  - Other bacteria
  - Candida SP & yeast (bone marrow transplant & severe immunosuppression
  - Acne fulminans (necrotic pustules; slim adolescent)

SUBACUTE±FEVER

PURPURIC PUSTULES
- Gonococcemia
- Chronic meningococcemia
- Pustular vasculitis

NON PURPURIC PUSTULES
- Infectious
  - Subacute endocarditis
  - Varicella/zoster (vesicles); Eczema herpeticum
- Non infectious
  - Behçet disease
  - Sweet syndrome
  - Pustulosis of inflammatory bowel diseases
  - Severe iodides after contrast media injection
  - Pustulosis of connective tissue diseases (big folds, hairy zones
  - Sonozaki syndrome (anterior chest rheumatism)

Not to be missed

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The main questions are: “Is it infectious?” and “Is there a life saving procedure to be implemented within hours?” Several clues exist to solve these questions:

- **Fever** is important but may not always be a sign of sepsis: acne fulminans, systemic vasculitis, pustular psoriasis.
- **Systemic signs;** a severe impairment of vital signs will narrow the diagnostic hypothesis, and at first focus on acute severe systemic infections.
- **Clinical features of the pustules:** subcorneal, superficial (milky, confluent) pustules are non-infectious as a rule; purpuric pustules raise the alarm for potentially rapidly lethal infection (meningococccemia); raised palpable pustules, whether follicular or not, open a wide range of possible diagnosis.
- **Topography:** “disseminated” means that pustules are not confined to a particular area, e.g., palms and soles, but may be situated in every part of the body, even if they are few. Yet some diseases may have a preferential topography, e.g., big folds for acute generalized exanthematic pustulosis (AGEP).
- The local bacteriological sampling may be helpful when performed on closed lesions during septicemias when blood cultures are negative; on open lesions, such sampling may be valid if the bacteria does not belong to the cutaneous flora.

Two stages in the recognition of the pustules:

- Blisters or vesicles: the liquid sooner or later becomes filled with polymorphonuclears (even in the absence of superinfection) and thus looks like a pustule. This happens early for herpetic vesicles.
- Short-lived, labile pustules. The subcorneal, superficial non-follicular pustules may be extremely short-lived, especially in the case of AGEP, and the diagnosis must sometimes rely on “remnants”, i.e., superficial desquamation mimicking exfoliative dermatitis.

The diagnostic algorithm in the figure doesn’t cover children or regional forms of pustulosis (Fig. 35.1).