

Introduction to dermatology

Marta Sar-Pomian

Department of Dermatology

Medical University of Warsaw

What does dermatology deal with?

- macroscopic/dermoscopic study of skin, adjacent mucosa and cutaneous adnexa,
- recognition of patterns and configurations, variations in morphology and colors

Function of the skin

- Photoprotection
- Thermoregulation
- Barrier formation
- Immunologic protection
- Reparation of injuries
- Communication with the environment
- Attracting attention

Morphology of skin lesions

Primary skin lesions

- Macule
- Patch
- Papule
- Plaque
- Nodule
- Vesicle
- Bulla
- Pustule
- wheal

Macule

- Flat, circumscribed
- <1 cm in diameter
- Various colors
- Often hypo- and hyperpigmented



Patch

- Flat, circumscribed
- > 1cm in diameter
- Often hypo- and hyperpigmented



Papule

- Elevated, circumscribed
- <1 cm in diameter
- Elevation due to increased thickness of the epidermis and/or cells or deposits within the dermis
- May have secondary changes (scale, crust)
- Need to distinguish from vesicle or pustule

Psoriasis



Granuloma annulare



Lichen planus



Plaque

- Elevated, circumscribed
- >1cm in diameter
- Elevation due to increased thickness of the epidermis and/or cells or deposits within the dermis
- May have secondary changes

Psoriasis



Wheal

- A rounded or flat-topped
- pale red papule or plaque
- Disappears within 24-48 h

Urticaria



Nodule

- Elevated, circumscribed
- Larger volume than papule
- Involved the dermis and may extend to the subcutis
- Greatest mass may be beneath the skin surface

BCC



Hidradenitis suppurativa



Furuncle



Vesicle

- Elevated, circumscribed
- <1 cm in diameter
- Primarily filled with clear fluid
- May become pustular, umbilicated or an erosion







Bulla

- Elevated, circumscribed
- >1cm in diameter
- Filled with clear fluid



Pustule

- Elevated, circumscribed
- Usually <1 cm in diameter
- Filled primarily with purulent fluid



Secondary skin lesions

- Crust
- Scale
- Fissure
- Erosion
- Ulceration
- Excoriation
- Atrophy
- lichenification

Crust

- Dried serum, blood or pus on the surface
- May include bacteria

Impetigo contagiosa



Scale

- Hyperkeratosis
- Accumulation of stratum corneum due to increased proliferation and/or delayed desquamation

Psoriasis



Fissure

- Linear cleft in skin
- Often painful
- Results from marked drying, skin thickening and loss of elasticity



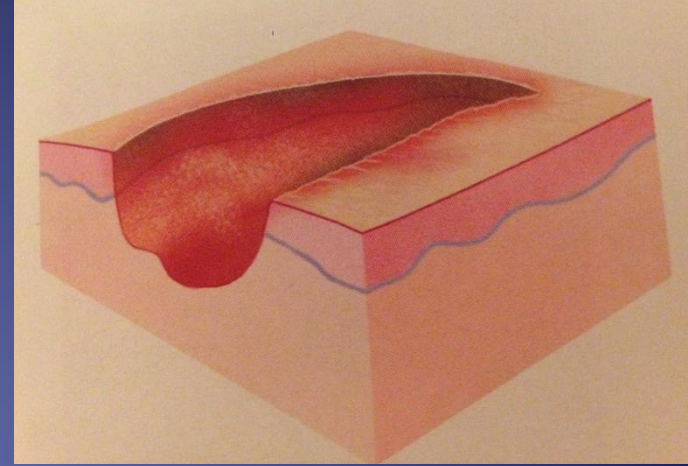
Erosion

- Partial loss of the epidermis (epithelium)

Pemphigus vulgaris



Ulceration



- Full-thickness loss of the epithelium
- May have loss of the dermis or even subcutis

Pyoderma gangrenosum



Excoriation

- Exogenous injury to all or part of the epidermis

Self-induced lesions



Atrophy

- Epidermal atrophy – thinning of the epidermis, leading to wrinkling and a shiny appearance
- Dermal atrophy – loss of dermal collagen and/or elastin, leading to a depression

Lichenification

- Thickening of the epidermis and accentuation of natural skin lines

Atopic dermatitis



Scar

- Fibrous tissue replacement of the skin defect oraz after inflammation

DLE



Colors

Race & ethnicity

- African
- African-American
- Asian
- Middle-Easterner
- Northern European
- Southern European
- Native American
- Pacific Islander
- Hispanic

Fitzpatrick phototypes

| Skin phototype | Skin color | Response to UV radiation |
|----------------|------------|-------------------------------------|
| I | white | Always burns, does not tan |
| II | white | Burns easily, tans with difficulty |
| III | beige | Mild burns, tans gradually |
| IV | brown | Rarely burns, tans easily |
| V | Dark brown | Very rarely burns, tans very easily |
| VI | black | Never burns, tans very easily |

Configuration

- Annular
- Serpiginous
- Clustered
- Reticulated
- Retiform
- Linear
- „unnatural”

Annular



Serpiginous



Clustered - zoster



Reticulated – erythema ab igne



Linear - psoriasis



Unnatural



Unnatural



Distribution

- Flexures
- Extensors
- Seborrhoeic
- Tension lines
- Photodistribution
- Unilateral
- disseminated

Atopic dermatitis









Seborrheic areas

SD



SD



SD



SD



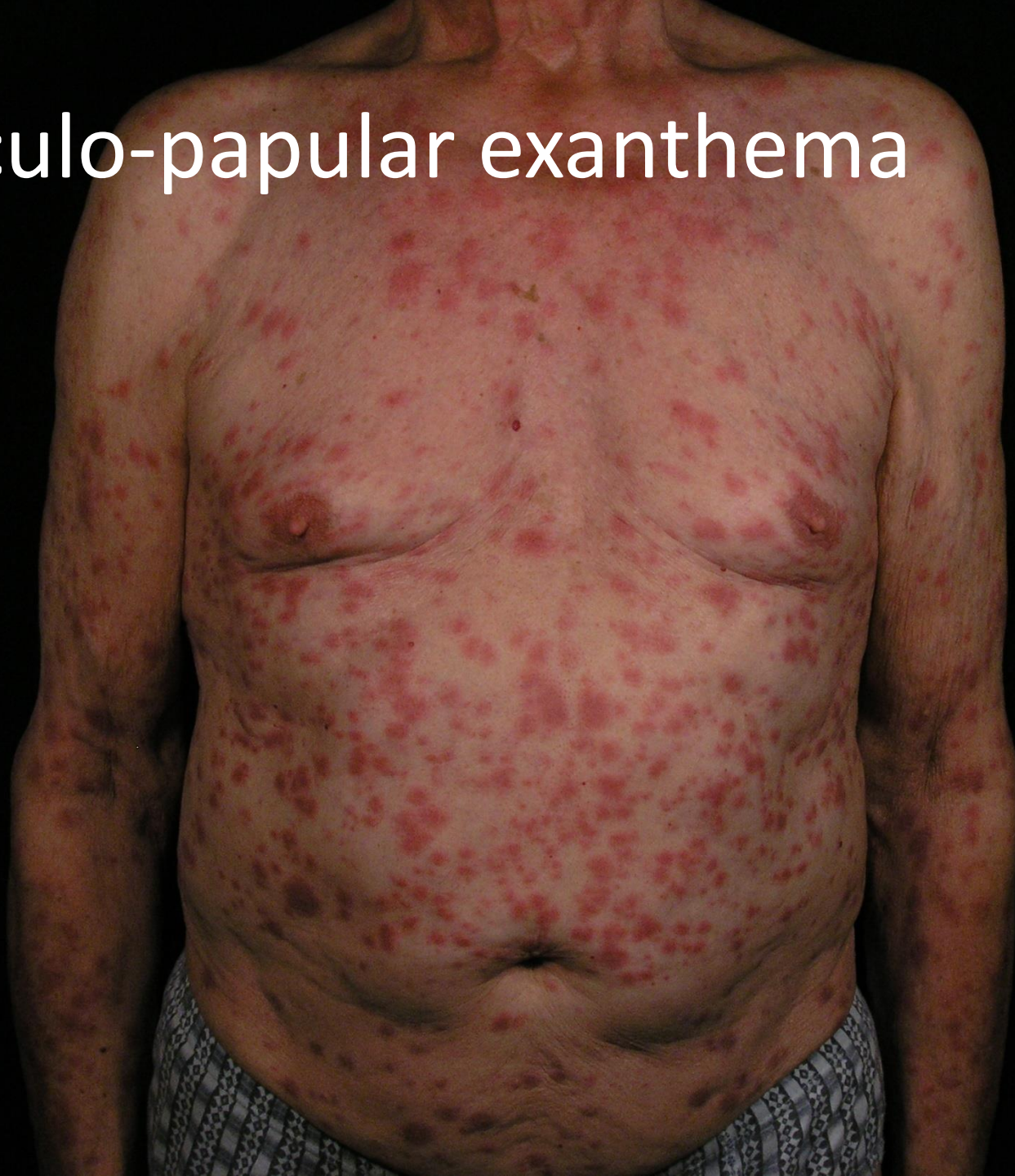
SD



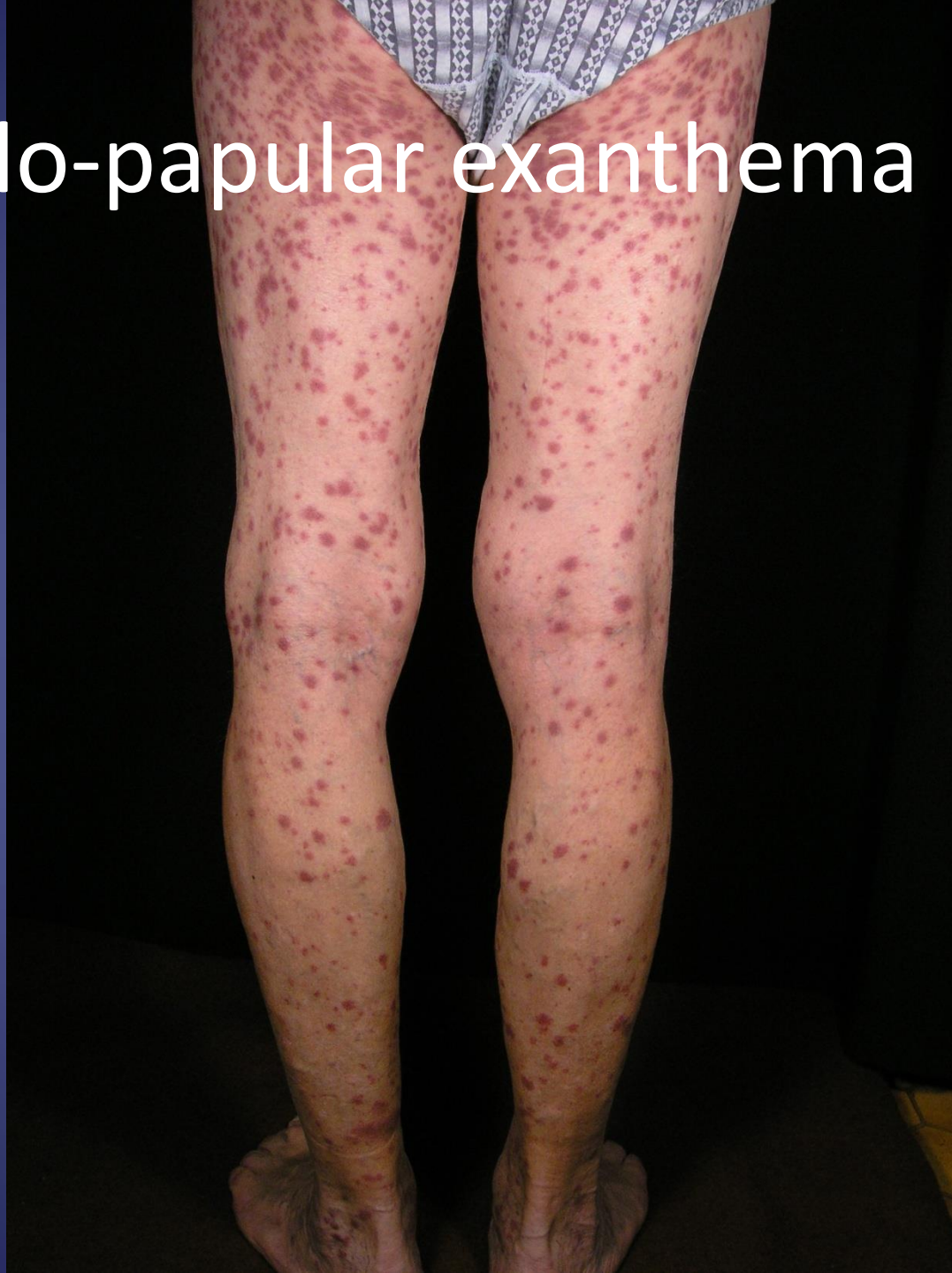
Lesion/s:

- Solitary
- Multiple: localized or disseminated

Maculo-papular exanthema



Maculo-papular exanthema



Erythroderma













Impetiginisation



Diagnostic tools in dermatology

- Clinical picture
- Mycology
- Woods lamp
- Diascopy
- Histopathology
- Dermoscopy