

# ■ Acute Inflammatory Dermatoses

Ghadeer Hayel  
M.D. Histopathologist



### Plaque and scales

**Plaque:** Elevated flat-topped lesion, >5 mm (coalescence of papules).

**Scales:** outermost layer of the epidermis becomes dry & flaky & peels.

**Plaque**



**Scale**



### Vesicle, bulla, blister

Fluid-filled raised lesion  $\leq$  5 mm in diameter (**vesicle**) or  $>$  5 mm in diameter (**bulla**). **Blister** is the common term for both lesions.

**Vesicles**



**Bulla**



### Acanthosis



**Acanthosis**

Thickening of the epidermis caused by an increased number of squamous cells

**Acanthosis**

Normal skin



**Acanthosis**  
Thickening of the epidermis caused by an increased number of squamous cells



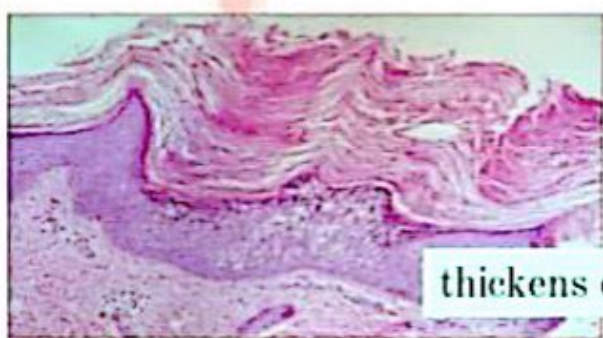
thickens of epi drmis

**Hyperkeratosis**

Normal skin

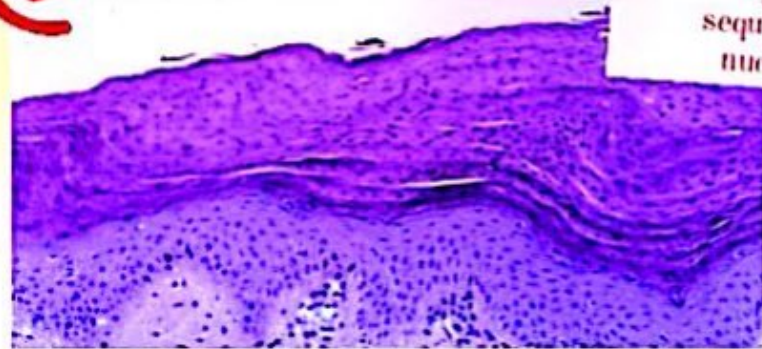


**Hyperkeratosis**  
Thickening of the keratin layer



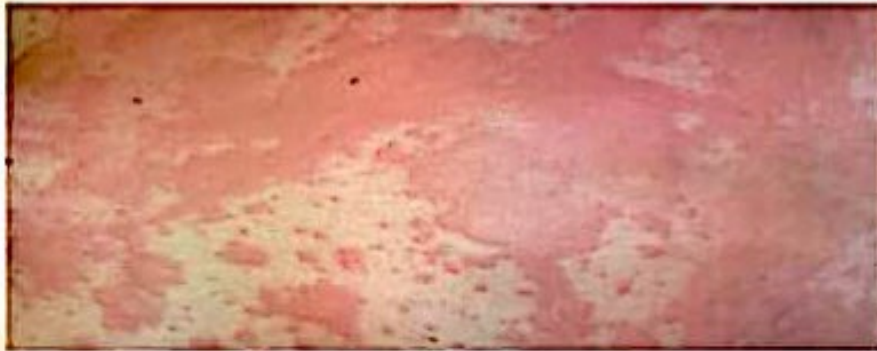
thickens of stratum cornum

**Parakeratosis**



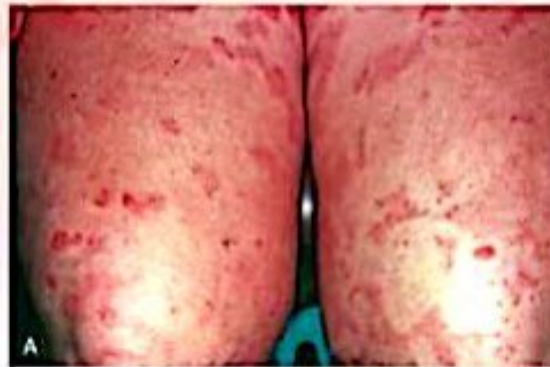
thickens of stratum cornum  
with nuclei  
اطبيعي مش لازم يكون فيها انويه  
لكن نتيجة لمرض بصير فيها انويه  
مثل  
light planes  
sequrt dermatitis  
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## Urticaria (hives)



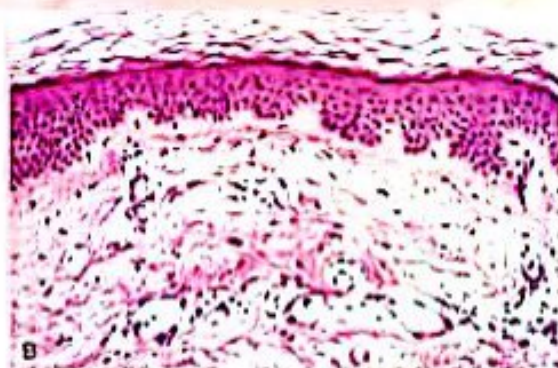
### MORPHOLOGY: Gross

Lesions vary from small, pruritic papules to large edematous Plaques, termed wheals




### MORPHOLOGY: Microscopic

- Features of urticaria often are subtle
- A sparse superficial perivenular infiltrate of mononuclear cells
- Dermal edema causes splaying of collagen bundles, making them appear to be more widely spaced than normal.





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### Eczema



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Pathogenesis: type IV hypersensitivity

erythema  
and pruritus



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### MORPHOLOGY: Gross

- Skin involvement in contact dermatitis is limited to sites of direct contact with the triggering agent
- Whereas in other forms of eczema, lesions may be widely distributed



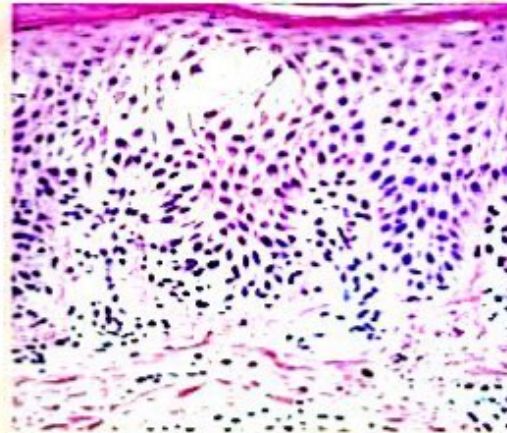
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### MORPHOLOGY: Microscopic

- **Spongiosis**; epidermal edema, characterizes all forms of acute eczematous dermatitis (**spongiotic dermatitis**).
- Edema fluid seeps into the epidermis → splays apart keratinocytes. Intercellular bridges are stretched & become more prominent (easier to visualize)

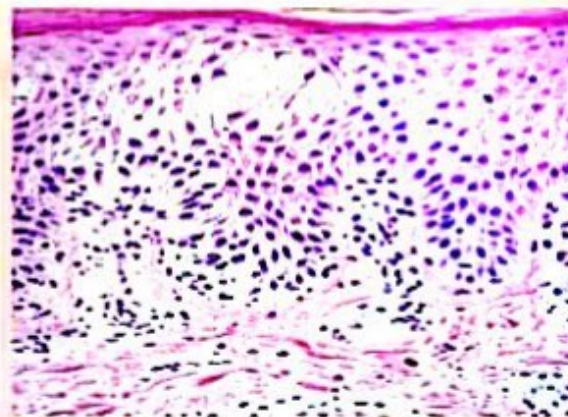


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ل 5 أنواع من الأكزيما تقريبا نفس الشي تحت الميكروسكوب

### MORPHOLOGY: Microscopic

- Superficial perivascular lymphocytic infiltrate, edema of dermal papillae, & mast cell degranulation.
- Eosinophils may be present (prominent in drug eruptions)
- Careful clinical correlation → Histologic features are similar



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### Clinical features

- Lesions are pruritic, edematous, oozing plaques, often containing vesicles and bullae.
- With persistent antigen exposure, lesions may become scaly (hyperkeratotic) as the epidermis thickens (acanthosis).
- Some changes are produced or exacerbated by scratching of the lesion



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# Erythema Multiforme

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## MORPHOLOGY: Gross

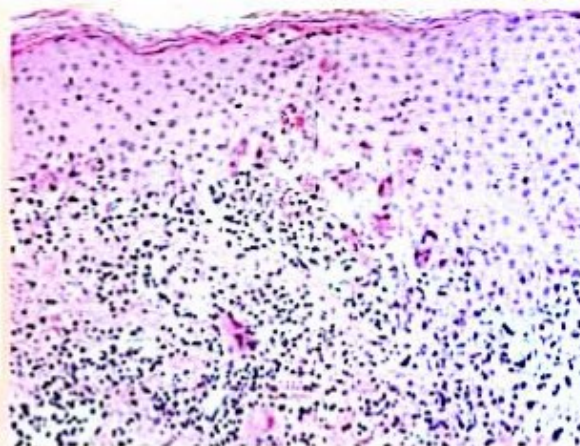
- Affected individuals present with a wide array of lesions, which may include macules, papules, vesicles, and bullae (hence the term *multiforme*).
- Well-developed lesions have a characteristic "targetoid" appearance



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## MORPHOLOGY: Microscopic

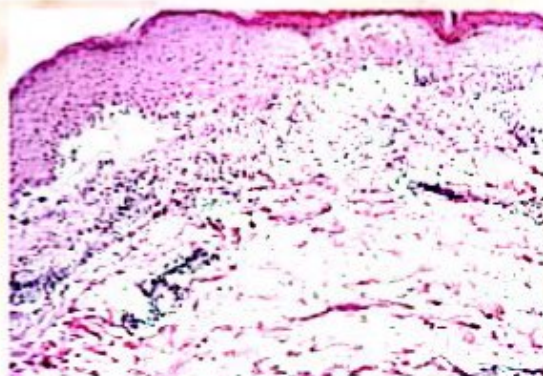
Early lesions show a superficial perivascular lymphocytic infiltrate associated with dermal edema & margination of lymphocytes along the dermoepidermal junction in intimate association with apoptotic keratinocytes



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## MORPHOLOGY: Microscopic

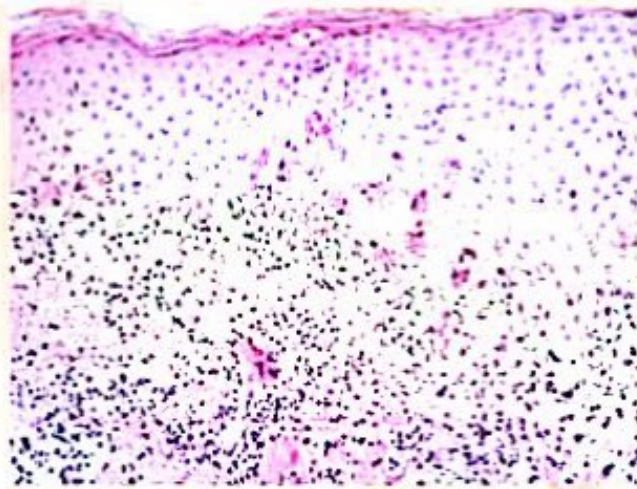
With time, discrete, confluent zones of basal epidermal necrosis appear, with concomitant blister formation



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**MORPHOLOGY: Microscopic**

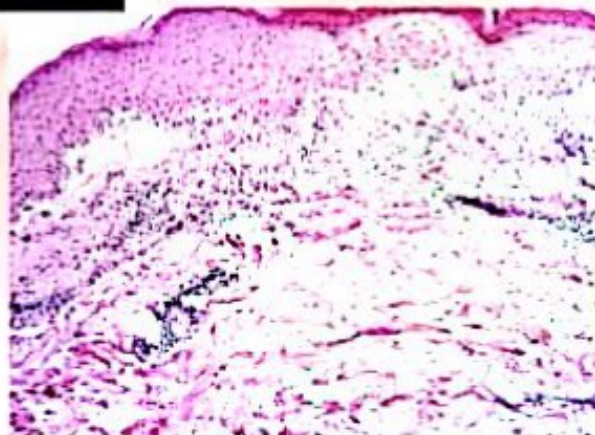
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**erythema multiform**

With time, discrete, confluent zones of basal epidermal necrosis appear, with concomitant blister formation



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**Clinical features**

- Erythema multiforme caused by medications may progress to more serious eruptions → Stevens-Johnson syndrome (toxic epidermal necrolysis)
- It is life-threatening → may cause sloughing of large portions of the epidermis → fluid loss & infections
- Complications (like burn-injured patients)

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