Ulceration – infection or not?

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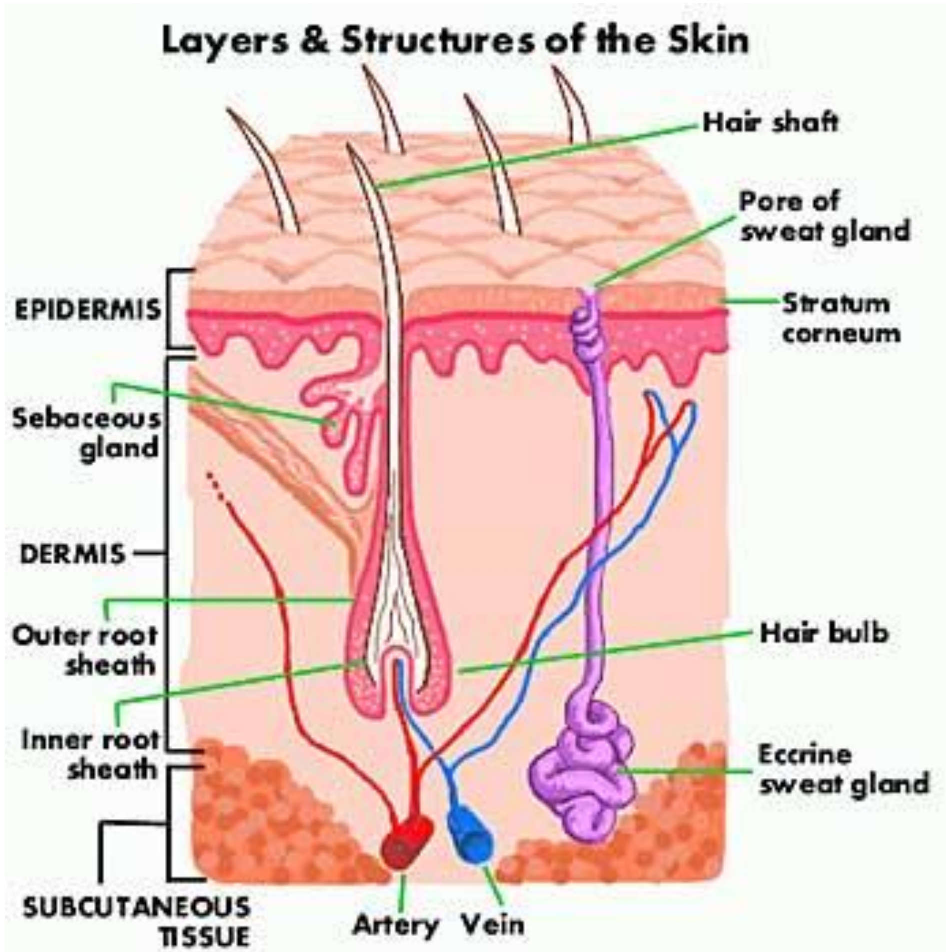
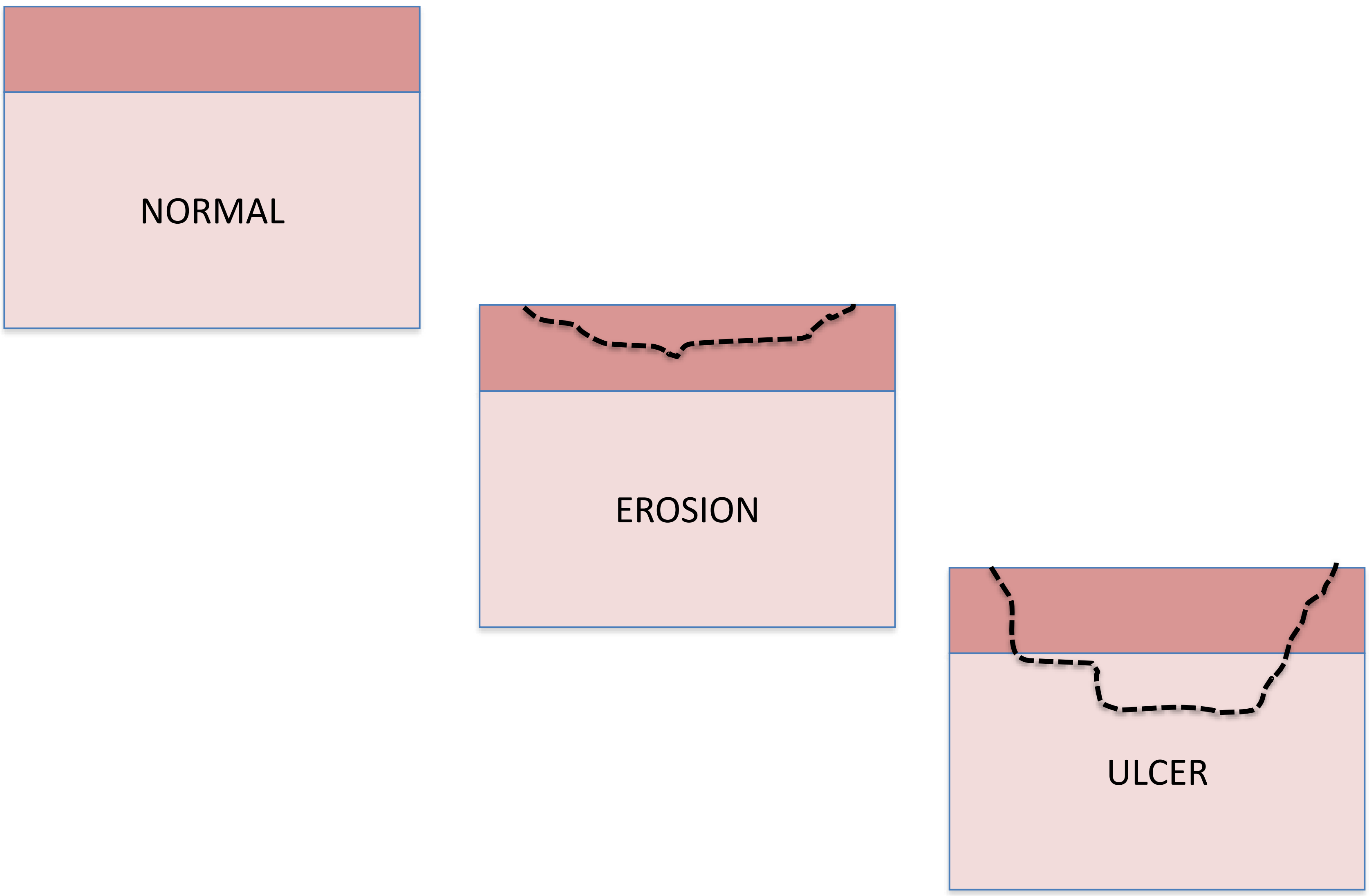
What is an ulcer?

- Loss of epidermis and damage extends into dermis and sometimes into the subcuticular tissue

Structure of the skin




NORMAL
EROSION
ULCER

4 main causes

- Infection
- Inflammation
- Trauma
- Neoplasia

What is important in the history?

- Duration
- Pain
- Previous episodes
- Treatment used
- Systemic symptoms
- Medical history, especially immune suppression
- Drug history

Signs on examination

- Site
- Single or multiple
- Scarring
- Are there any blisters?
- Look at other sites

Investigation

- Swabs – bacterial and viral
- May need special transport media
- Serology
- Biopsy +/- immunofluorescence

1a. Infection – sexually transmitted

- Lymphogranuloma venereum
- Syphilis
- Chancroid
- Donovanosis
- Herpes simplex

Zare SY. Infectious disorders of the vulva. Semin Diagn Pathol. 2021 Jan;38(1):19-26.

1b. Non-sexually transmitted

- Amoebiasis
- Lipschutz (acute non-sexually acquired genital ulcers)
- Herpes zoster

- Others – tuberculosis, schistosomiasis, leishmaniasis

Lipschutz ulceration

- Teenage girls
- Acute onset
- Painful
- Associated with EBV and other infections

- Rx: topical steroids

- Resolve without scarring

Lipschutz and COVID

Reported after infection
and vaccination

2. Inflammatory

- Aphthae
- Behcet's
- Crohn's
- Drugs
- Others – epidermolysis bullosa, erythema multiforme

Aphthous ulcers

- Not as common as in the mouth
- Painful
- Yellow base
- Red rim
- Resolve within 5-7 days

Behcet's - diagnostic criteria

Recurrent oral ulcers plus two

- Genital ulcers
- Uveitis
- Retinal vasculitis
- Folliculitis/EN/acne
- Positive pathergy

Behcet’s – genital ulcers

- Multiple
- Painful
- Heal with scarring

- Rx: steroids, azathioprine etc
- Refer to specialist clinic (rheumatology/neurology/ophthalmology)

Scherrer MAR, Rocha VB, Garcia LC. Behçet's disease: review with emphasis on dermatological aspects. An Bras Dermatol. 2017 Jul-Aug;92(4):452-464.

Ano-genital Crohn's disease

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Review Article

Anogenital Crohn's Disease and Granulomatosis: A Systematic Review of Epidemiology, Clinical Manifestations, and Treatment

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Crohn’s disease

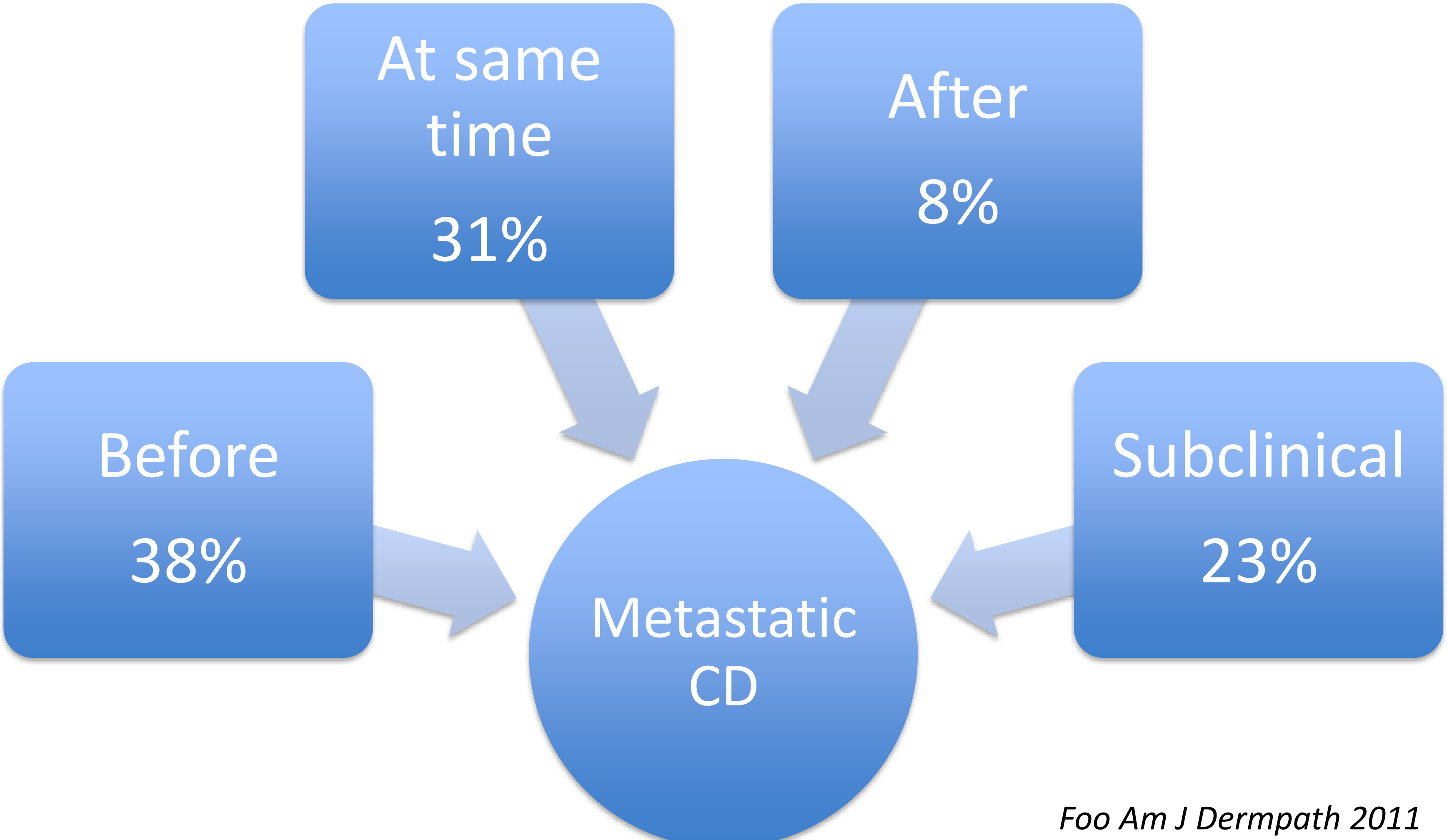
- 80% will have GI disease

  No GI symptoms 45% lesions on investigation

  With GI symptoms 96% lesions on investigation

- Adults and children present in similar way
- F>M

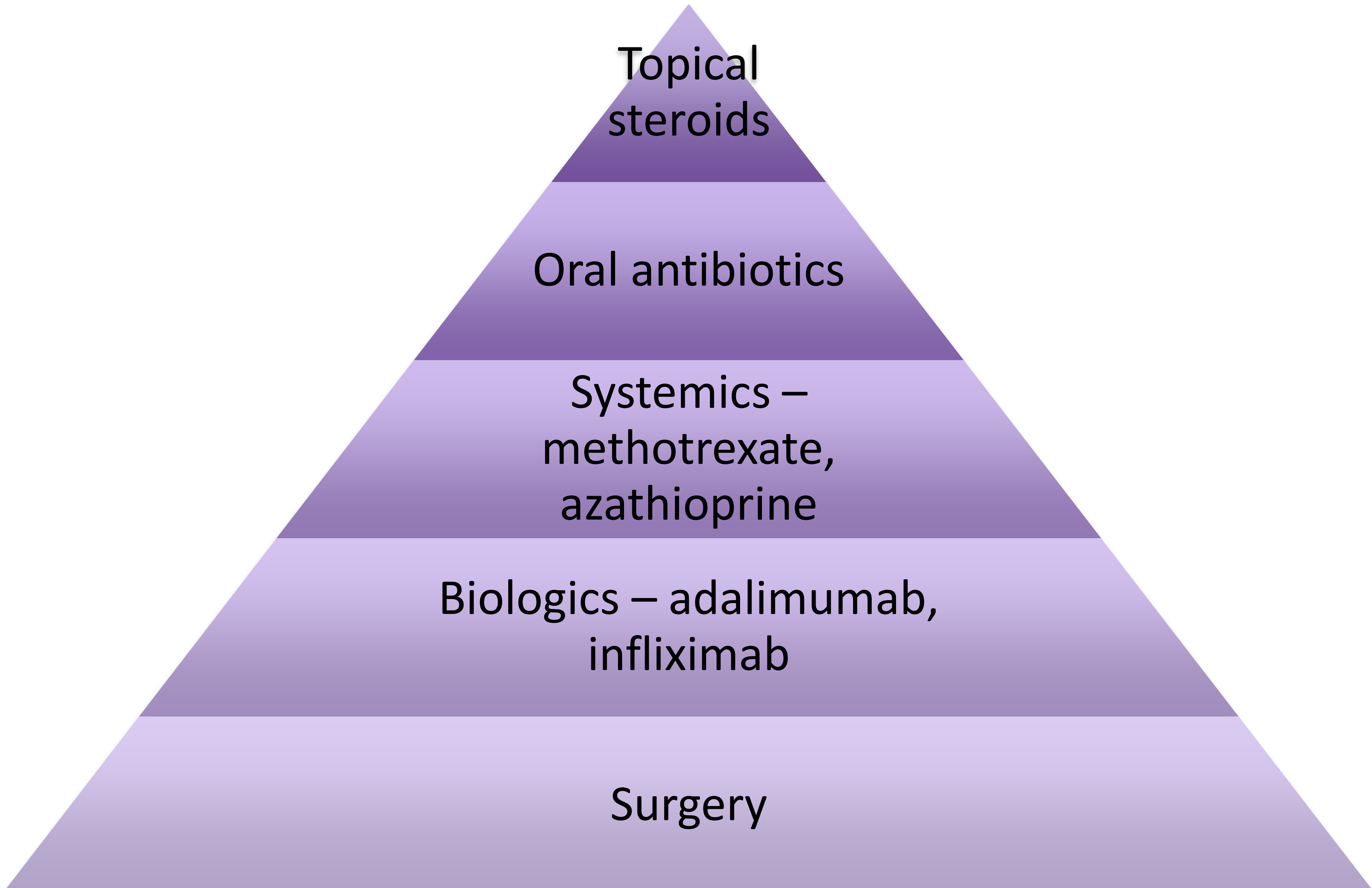
Presentation of GCD



Foo Am J Dermpath 2011

Symptoms	Signs
• Pain • Discharge • Swelling	• Oedema • Knife cut fissures • Ulcers • Fistulae • Lymphangiectasia • Perianal tags

Management of CD



Drug reactions

- Often bullous, but can develop into ulcers
- Stevens-Johnson syndrome, toxic epidermal necrolysis

- Need specialist management, significant mortality/morbidity

3. Trauma

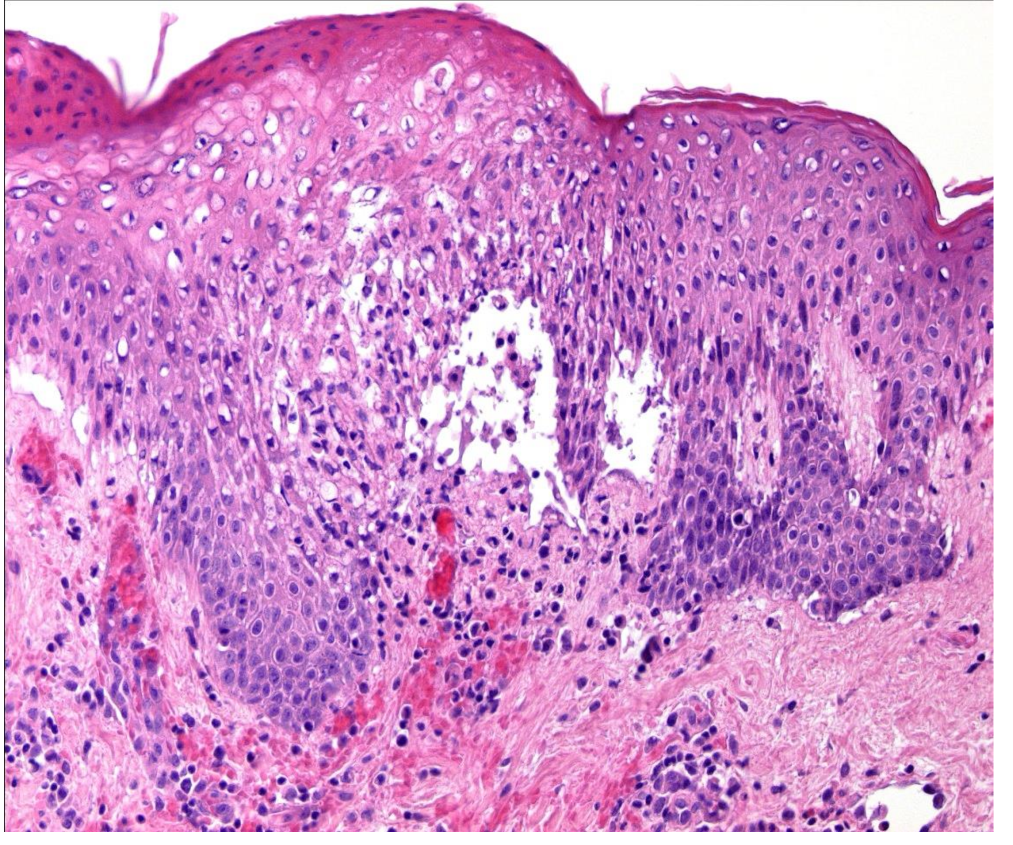
- Severe irritant/chemical dermatitis
- Trauma
- Nympho-hymenal tears
- Dermatitis artefacta

DIAGNOSIS

EMLA INDUCED BULLAE

EMLA® artefact histopathology

- Swelling of the stratum corneum with pallor and necrosis
- Vacuolization of the stratum malpighi
- Destruction of the basal layer with subepidermal clefting and basophilic granules



Unusual ulcer - history

- 36 year old
- Unable to walk
- Admitted 3 times with profuse vulval bleeding requiring blood transfusion
- Multiple cutaneous lesions, not healing
- MRI scan - no venous malformation
- Biopsies – ulceration, no inflammation

4. Neoplasia

- SCC
- Invasive Paget’s
- BCC
- Cutaneous lymphoma
- Langerhans cell histiocytosis

VULVAL ULCER

- acute
  - Infective
    - HSV
    - Syphilis
    - HIV
    - Lipschutz
  - Trauma
  - Inflammatory
    - Contact dermatitis
    - Aphthae
    - TEN/SJS
- chronic
  - Malignancy
    - SCC
    - BCC
    - Melanoma
    - others
  - Inflammatory
    - Crohns
    - HS
    - Behcets
    - Langerhans cell histiocytosis
    - Pyoderma gangrenosum

- 85 years old
- 4 month history
- Not painful
- Past history, diabetes, hypertension
- Drugs, aspirin, perindopril

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- 4 month history
- Not painful
- Past history, diabetes, hypertension
- Drugs, aspirin, perindopril – plus some little white ones

Take home messages

- Vulval ulcers are not always infective
- Atypical lesions in immunosuppressed
- Find a friendly dermatologist