THE SKIN IN PREGNANCY

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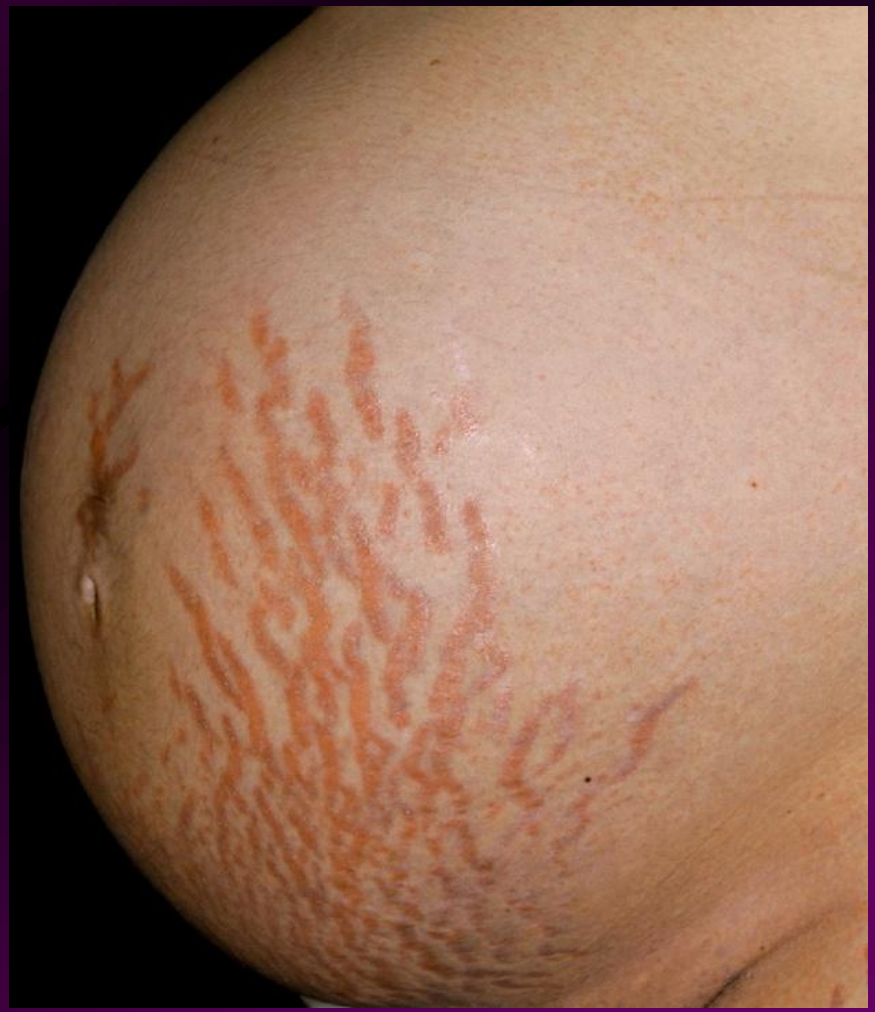
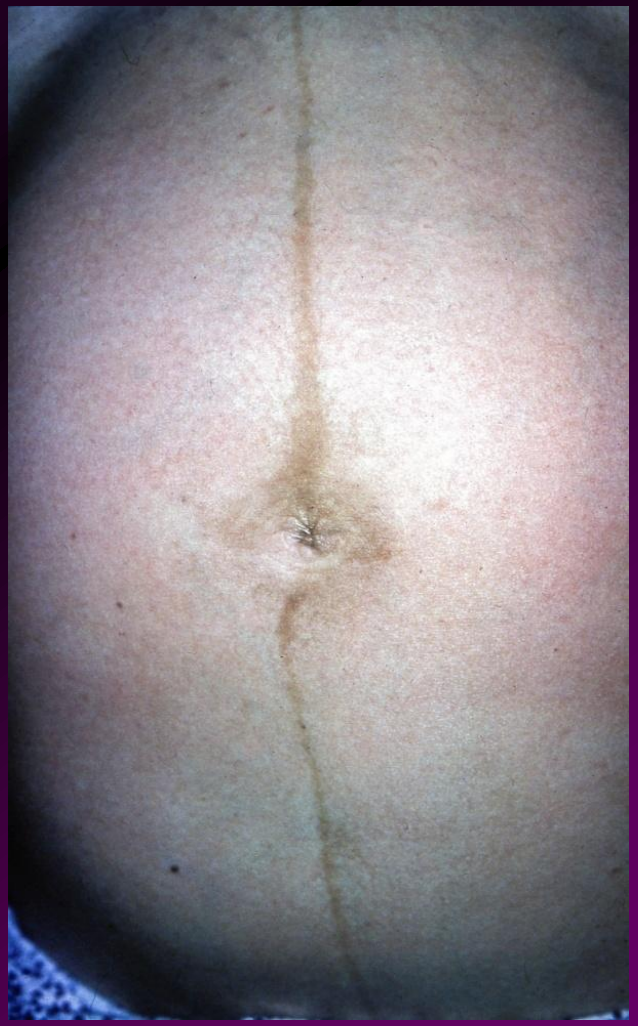
Physiological skin changes

- hyperpigmentation
- vascular changes
- changes in oral mucosa
- changes in hair
- striae distensae
- pruritus gravidarum

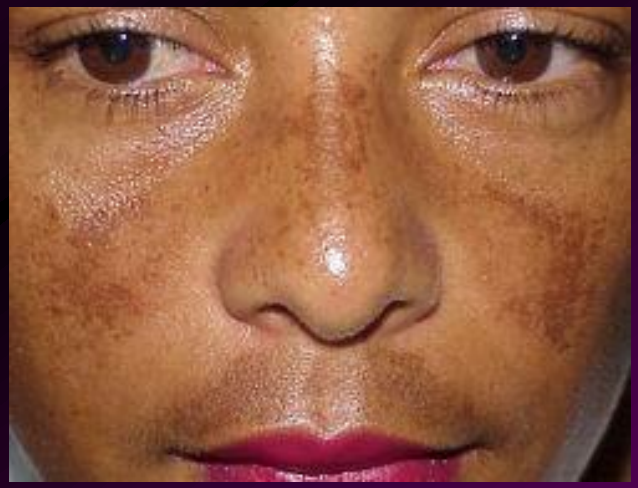


Hyperpigmentation

- linea nigra
- already pigmented areas may darken
- presumably due to stimulation of melanocytes by increased circulating levels of oestrogens, progesterone and MSH

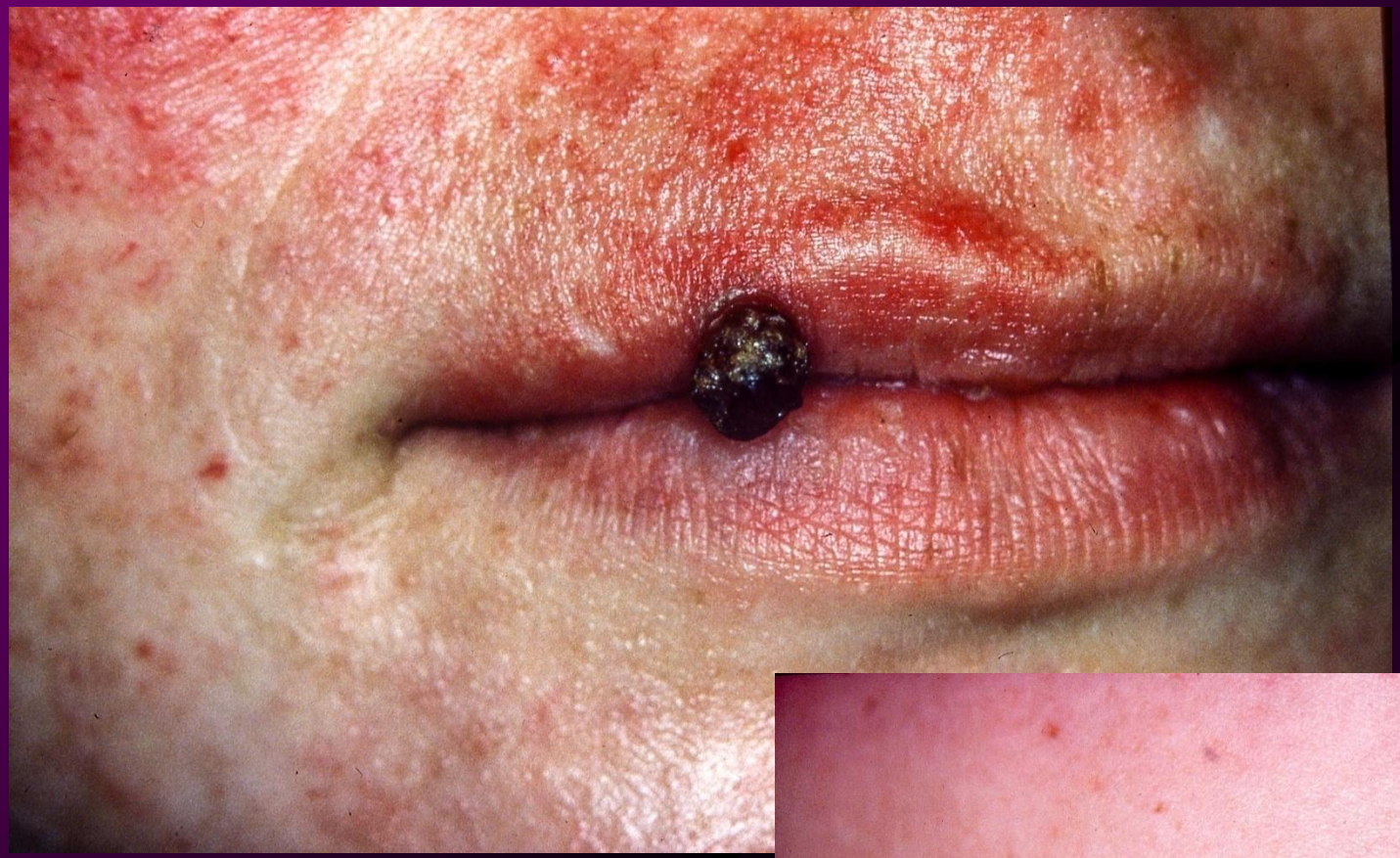


- **melasma**
  - 70% of women?
  - second half of pregnancy
  - worse in pigmented skins and with UV exposure
  - advise photoprotection

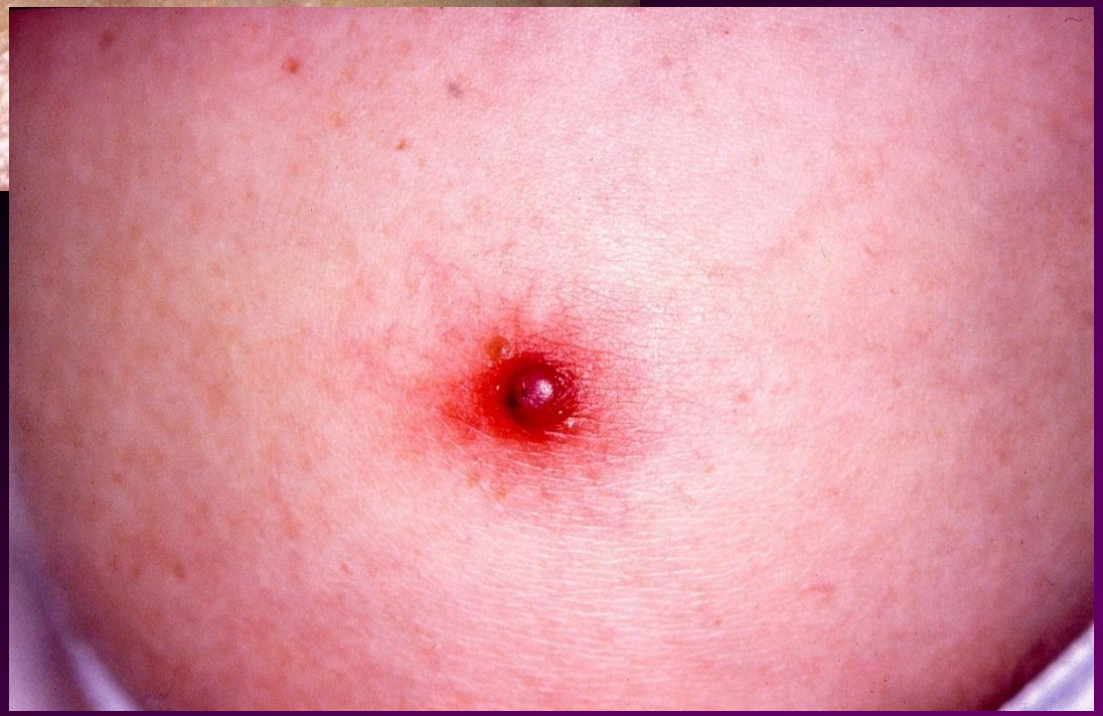


Vascular changes

- spider naevi
  - usually disappear post-partum
- palmar erythema
- haemangiomas
- all thought to be due to sustained high levels of circulating oestrogen
- worst in third trimester, generally reversible after delivery

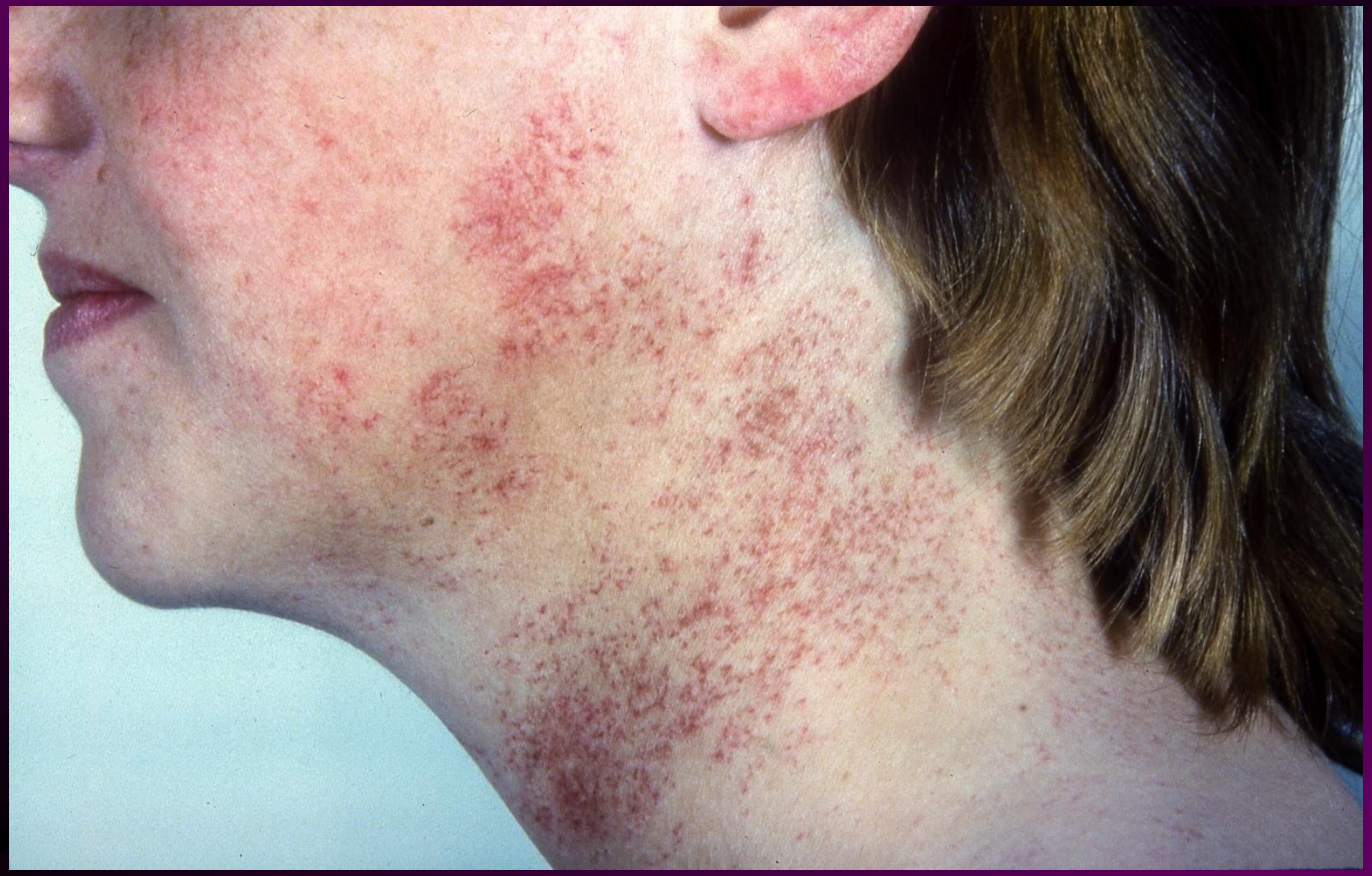


- pyogenic granuloma



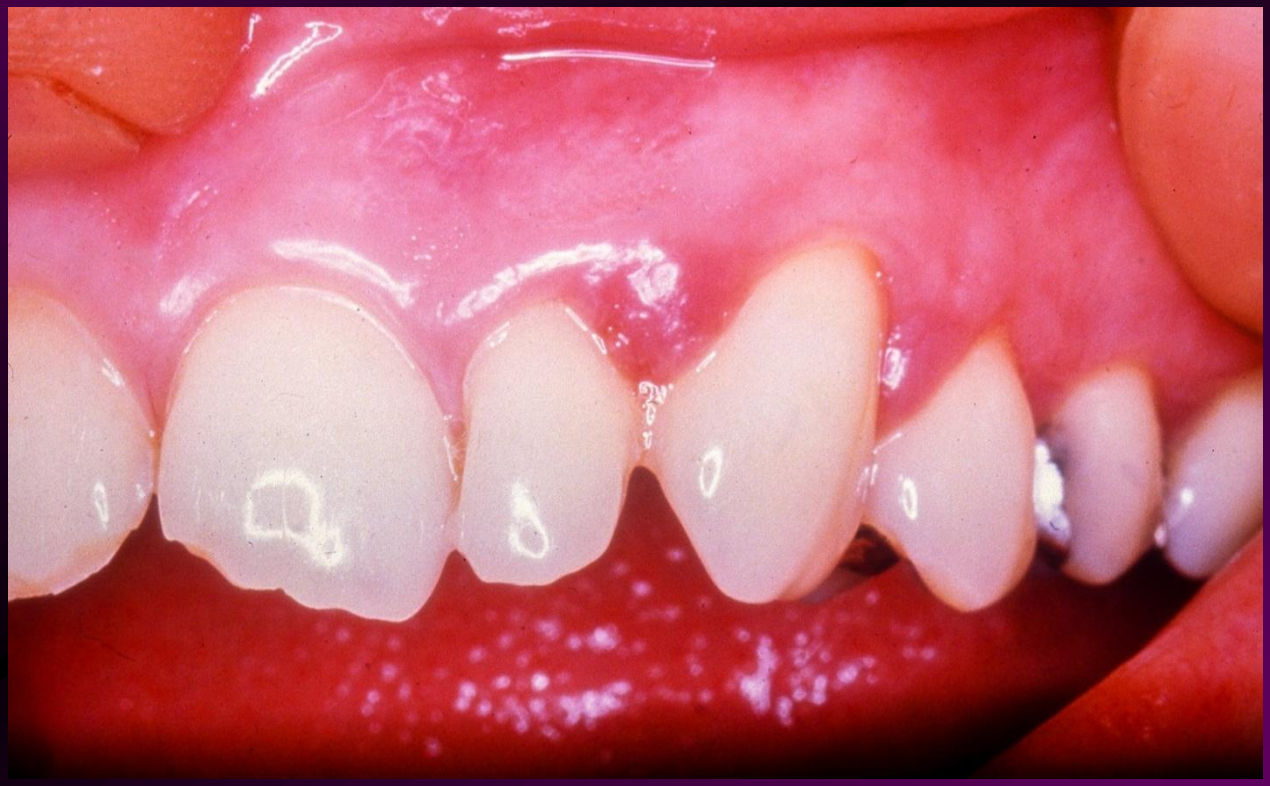
- haemangioma

- **angioma serpiginosum**
  - **worsened in pregnancy**

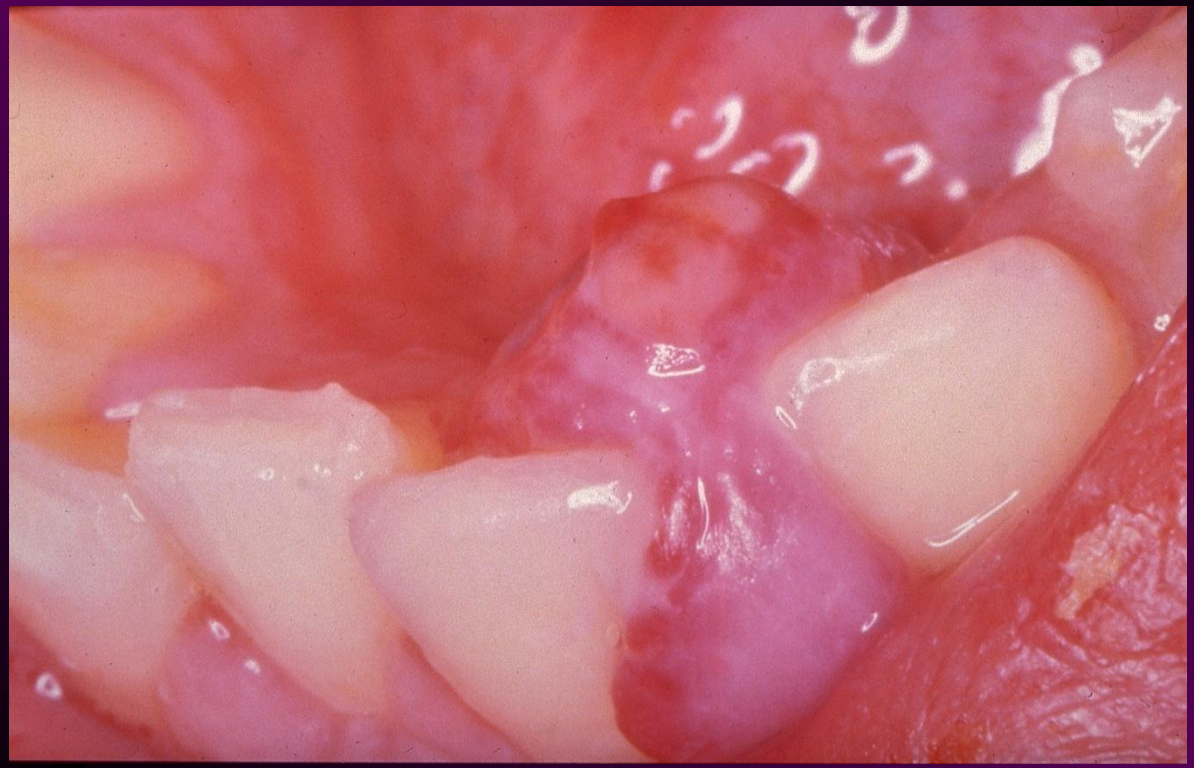


Changes in oral mucosa

- exacerbation of chronic gingivitis
  - oedema or redness



- **epulis**
  - **similar to pyogenic granuloma**



Changes in hair

- increased proportion of anagen hairs
  - hair is more luxuriant than normal
- post-partum telogen effluvium

Pruritus gravidarum

- skin itchy but clinically normal
- some due to cholestasis
- mainly third trimester
- abdominal wall
- may recur

Intrahepatic cholestasis of pregnancy

- ?3% of pregnancies
- itching without a rash
  - only skin lesions are secondary to scratching
- usually starts in late-second or third trimester
- usually abdomen, palms and soles initially; may become generalised
- reversible, but may persist throughout pregnancy before settling post-partum
- tends to recur

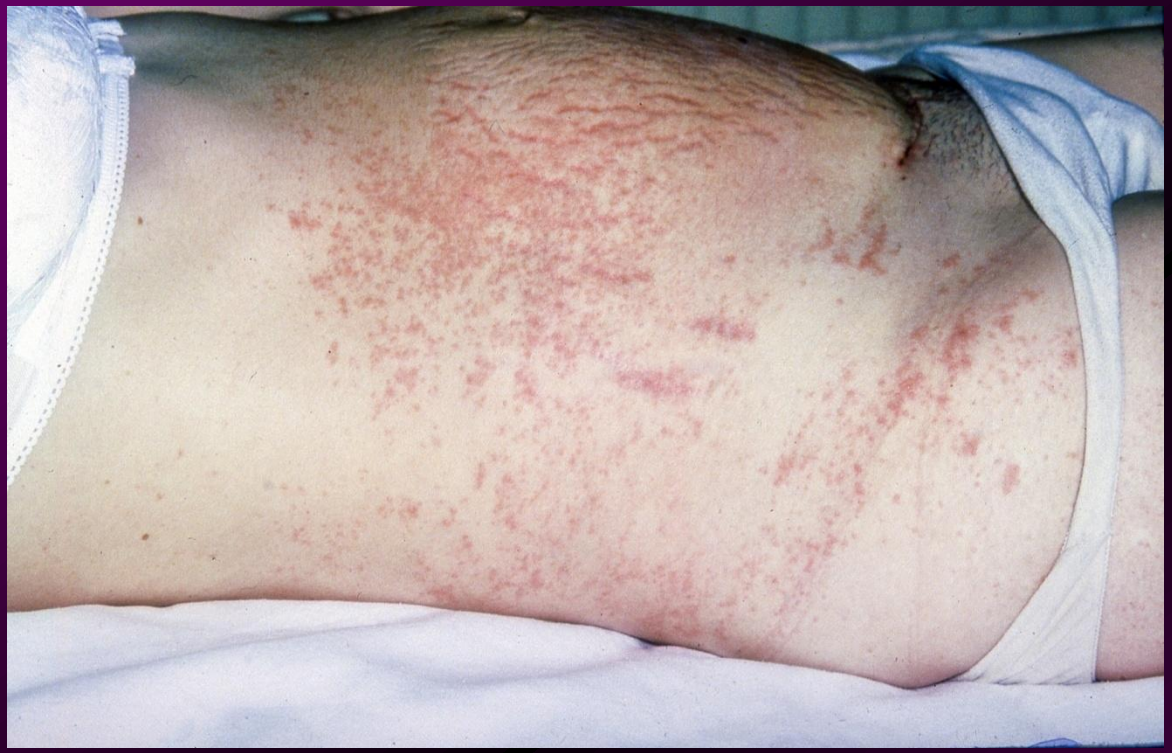
- elevated transaminases and bile acids
- jaundice may occur (?10%)
  - possibility of steatorrhoea, vitamin K deficiency
- increased incidence of
  - prematurity
  - intrapartal foetal distress
  - stillbirth
- ursodeoxycholic acid
  - evidence for improved foetal prognosis as well as reduction in maternal pruritus

Specific dermatoses of pregnancy

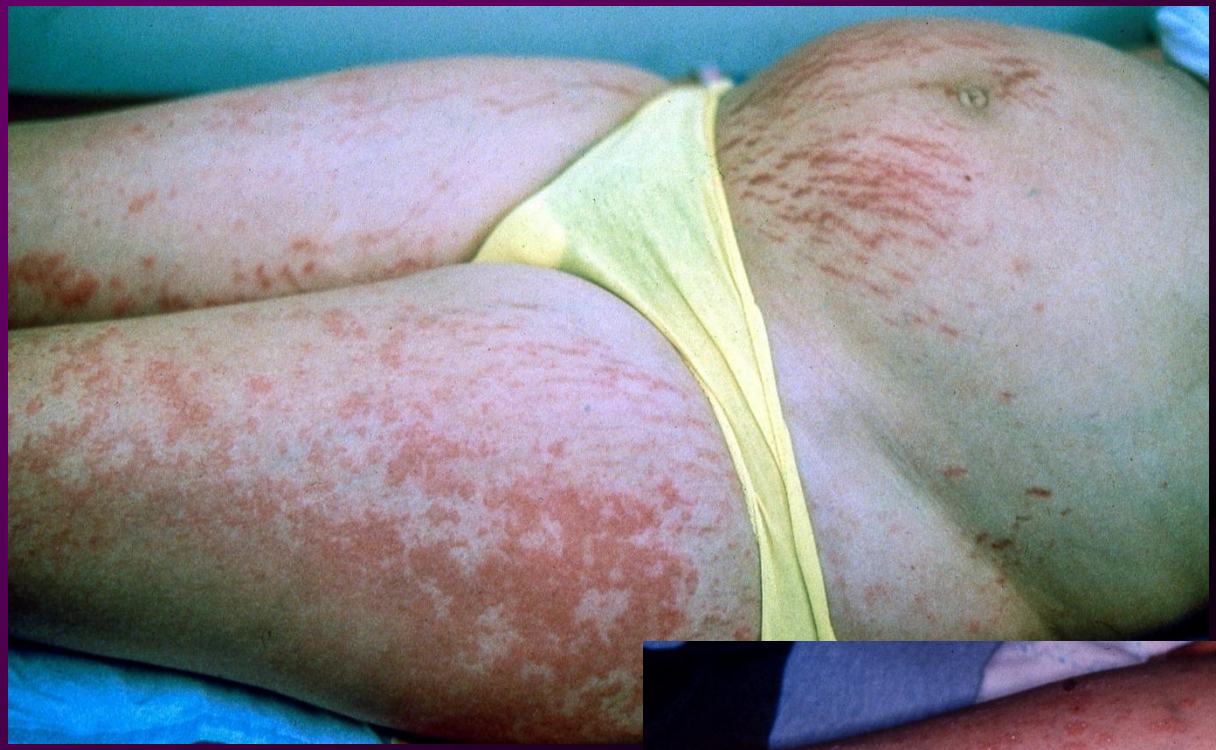
- polymorphic eruption of pregnancy
- atopic eruption of pregnancy (formerly prurigo and pruritic folliculitis of pregnancy)
- pemphigoid gestationis

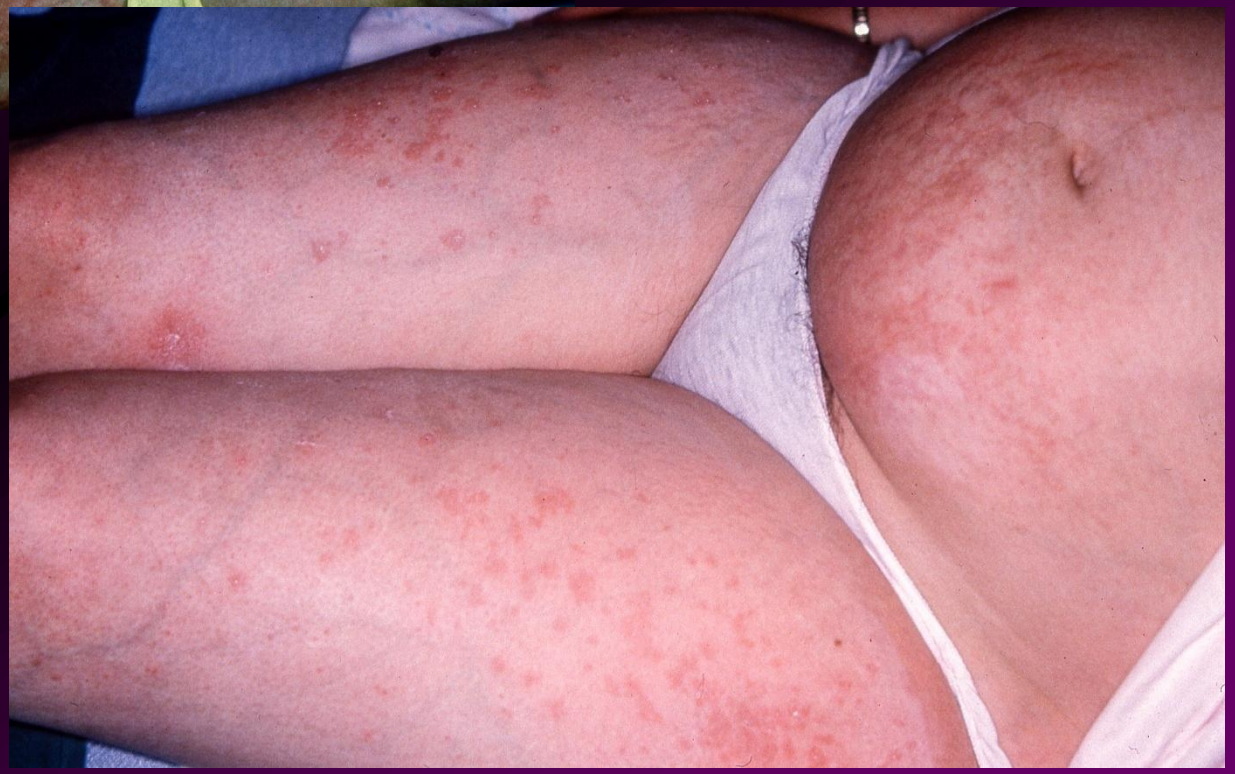
Polymorphic eruption of pregnancy

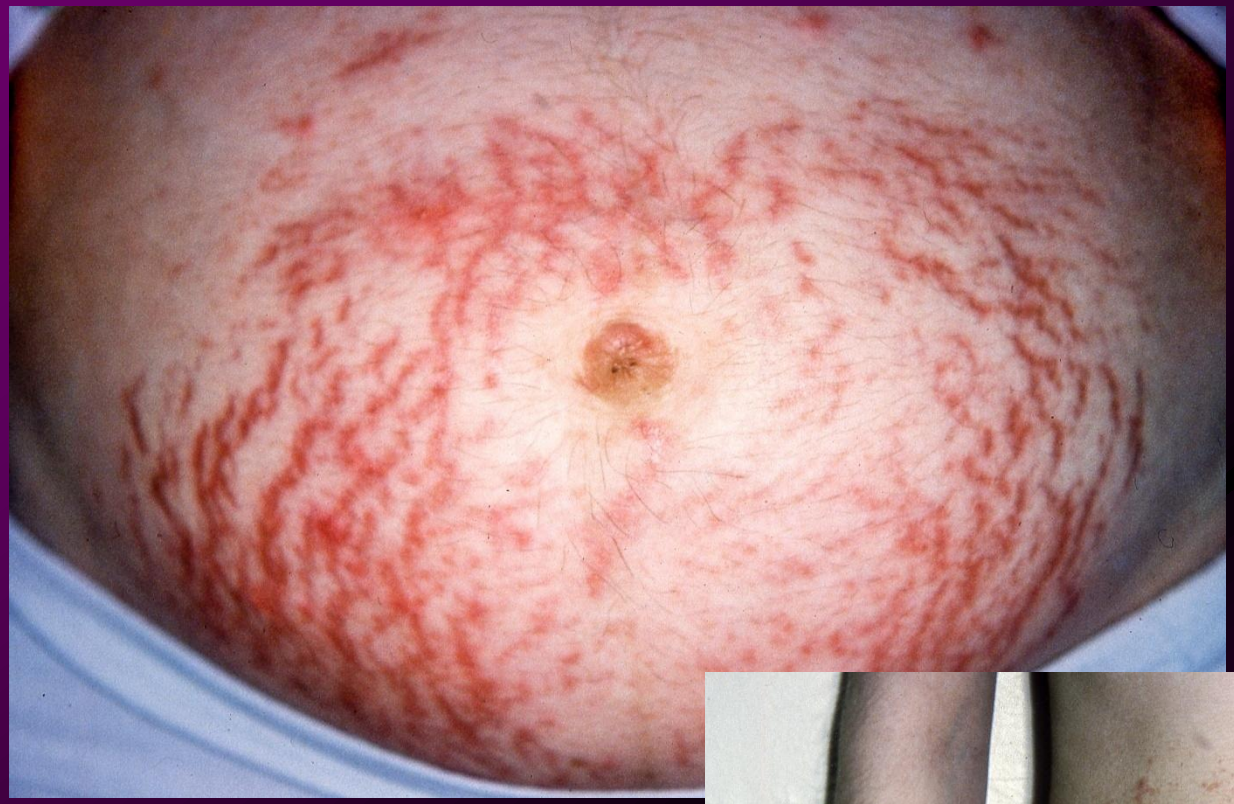
- common (?1/200 pregnancies) and self-limiting but unknown aetiology
- formerly “pruritic urticarial papules and plaques of pregnancy (PUPPP)”
- primigravidae > multigravidae
- more commonly seen in multiple pregnancy
- presents late in third trimester (or post-partum)

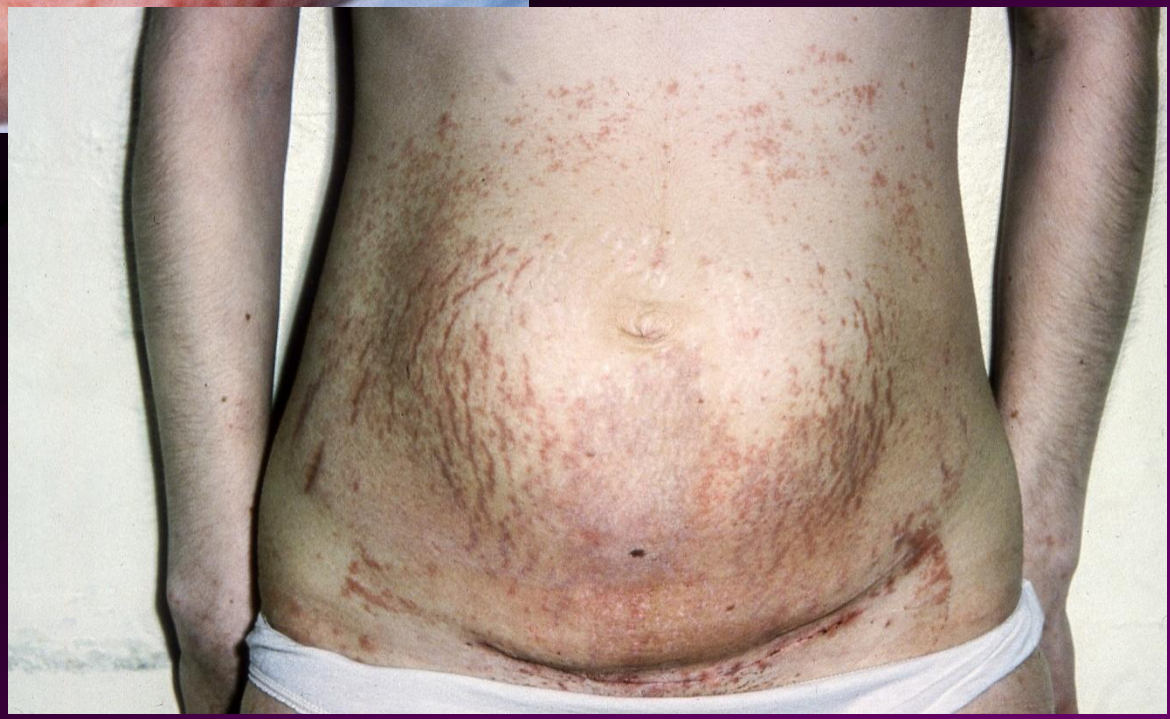


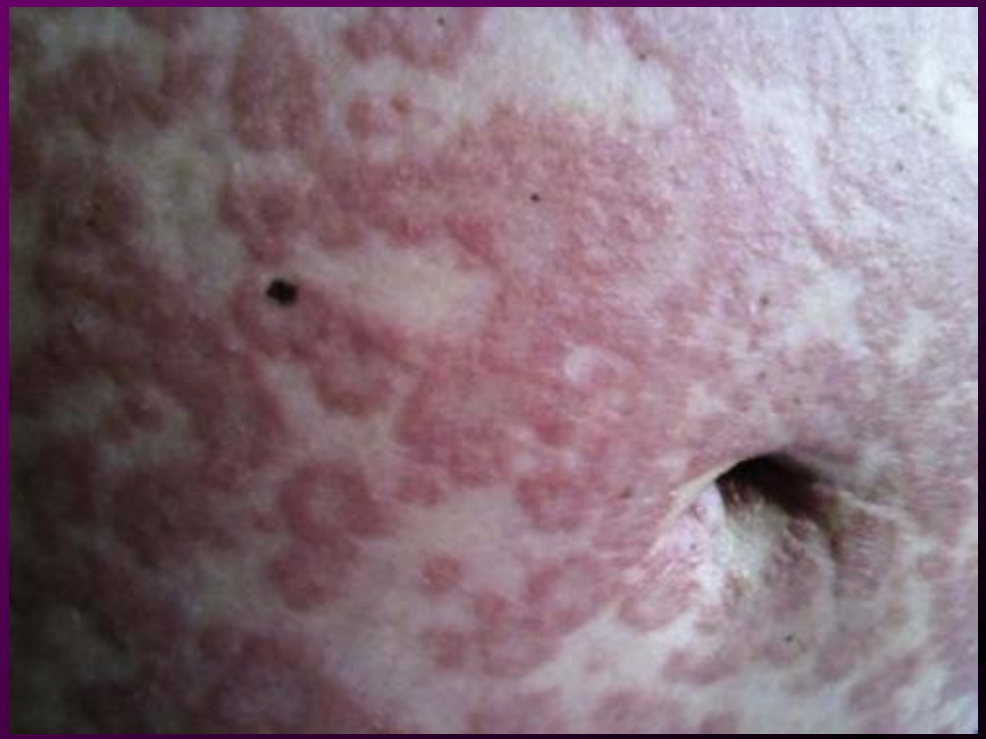
- morphology of rash very variable
  - urticarial plaques or non-urticated erythema
  - vesicles (but never bullae)
  - targetoid or eczematous lesions
- typically starts on striae
  - characteristically spares umbilicus
- ITCHY +++

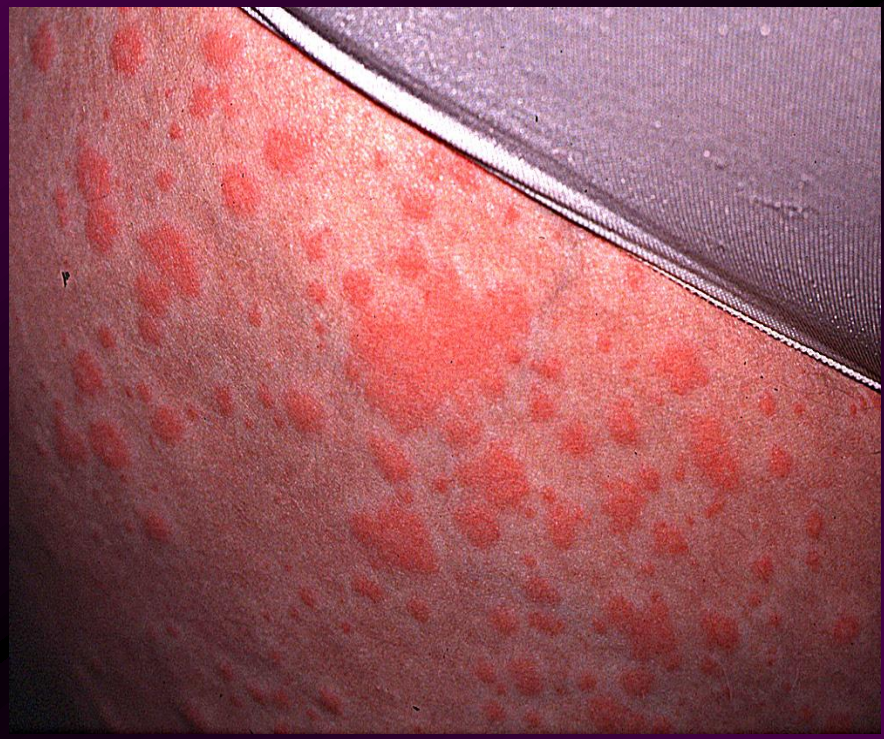


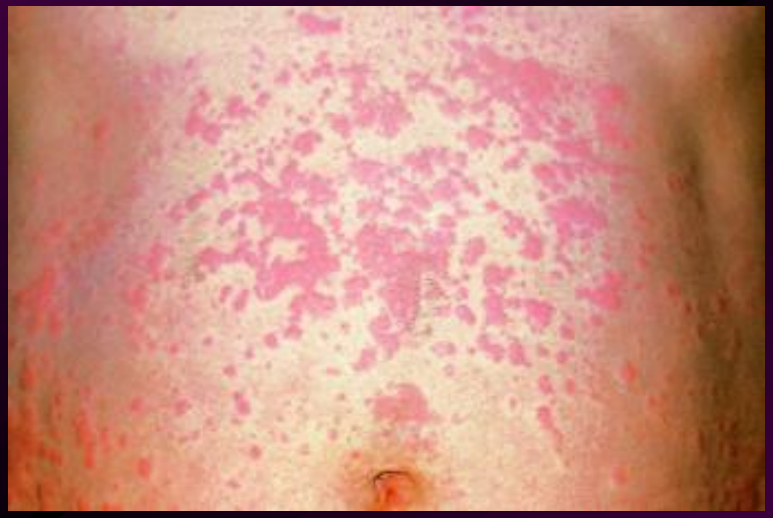


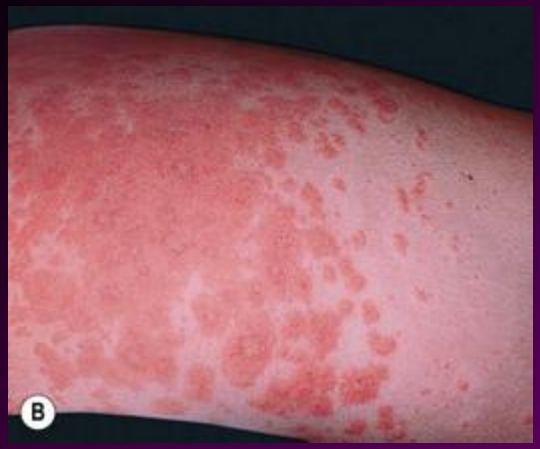








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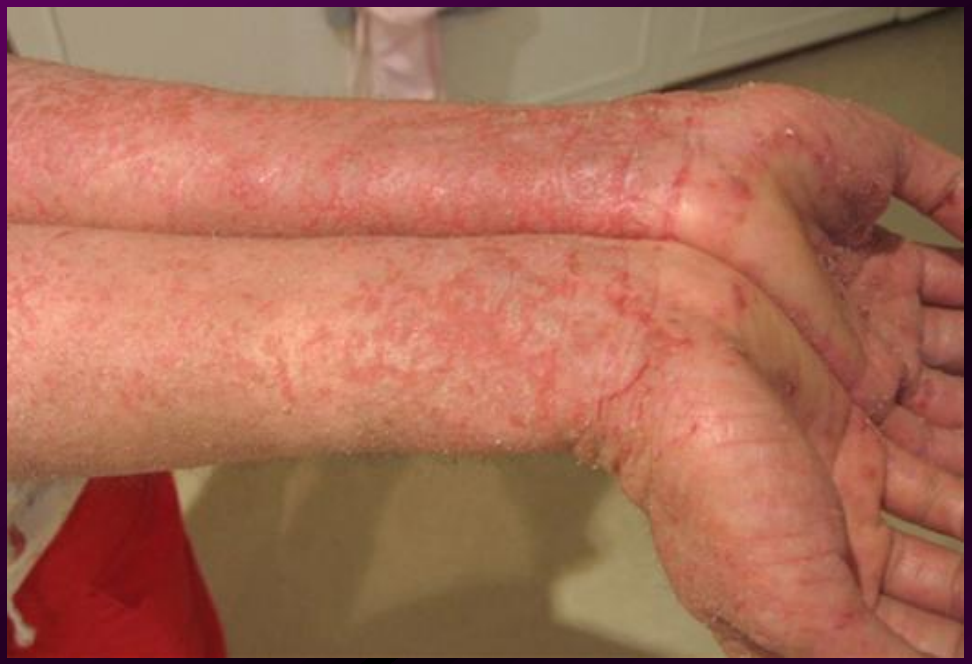
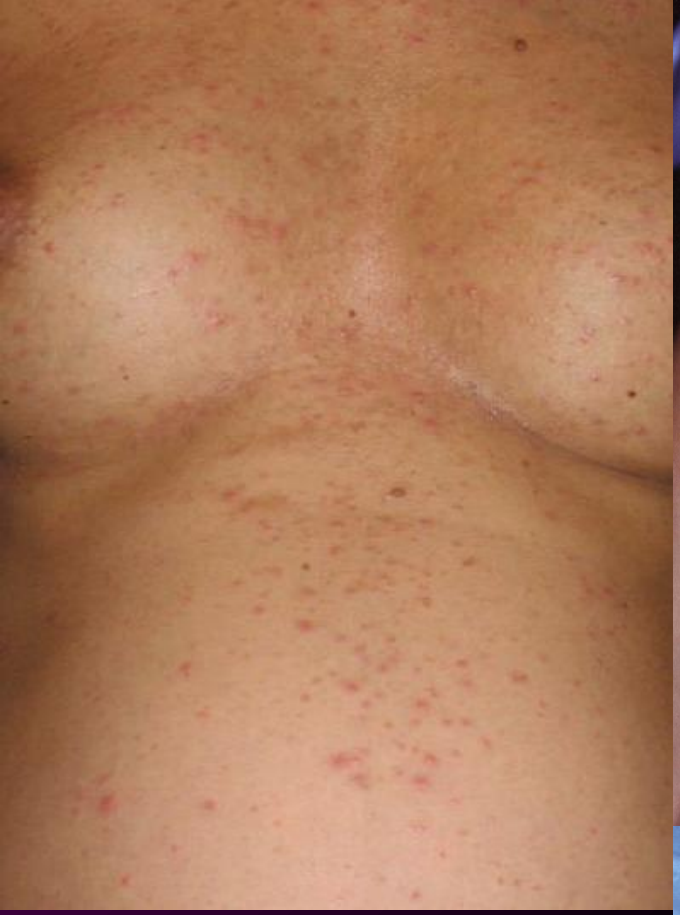
- no materno-foetal complications
- no tendency to recur
- differential diagnoses
  - eczema
  - erythema multiforme
  - scabies
  - early pemphigoid gestationis
- treatment
  - symptomatic with topical steroids, emollients and antihistamines

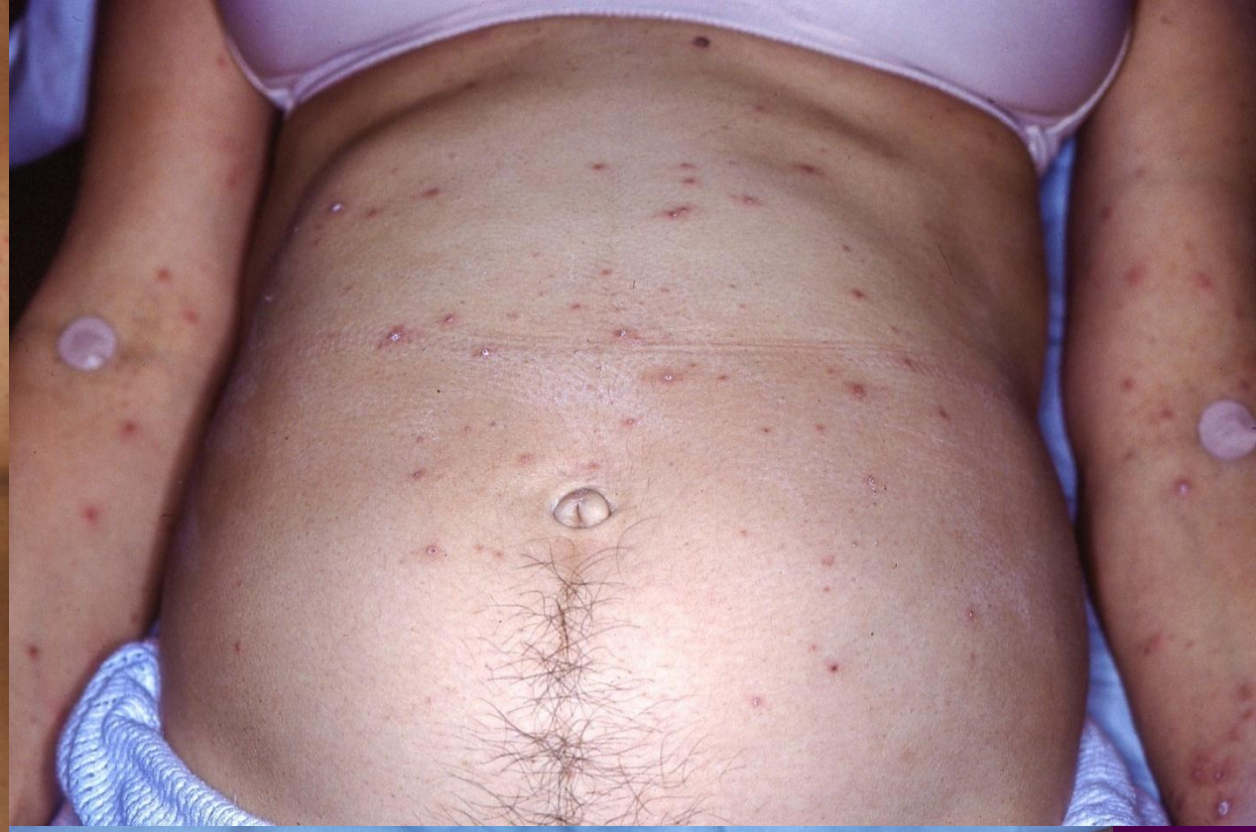
Atopic eruption of pregnancy

- common
  - 50% of patients with a pregnancy eruption
- formerly “prurigo of pregnancy” and “pruritic folliculitis of pregnancy”
- predominant Th2 cytokine profile in pregnancy
  - 20% = exacerbation of pre-existing atopic eczema
  - 80% = first time, or after long remission
- presents before third trimester in 75%, may persist post-partum
- ITCHY

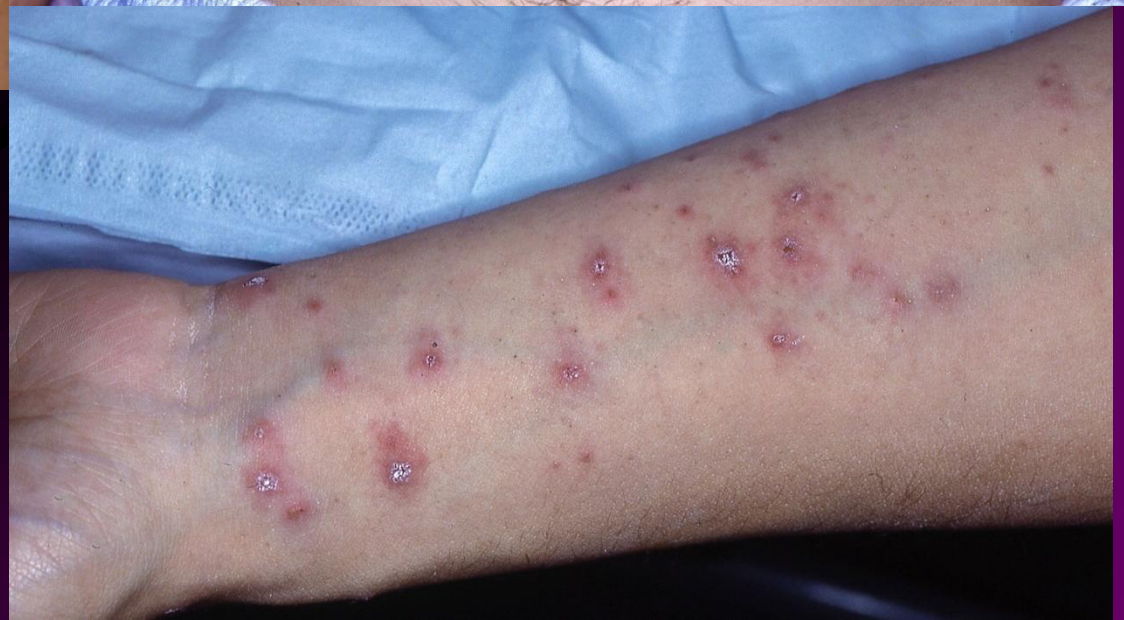


- morphology
  - 2/3 show widespread eczematous changes, often in typical atopic sites
  - 1/3 have grouped excoriated papules
  - extreme dryness of skin
  - post-inflammatory pigmentation





- 1/3 have grouped excoriated papules

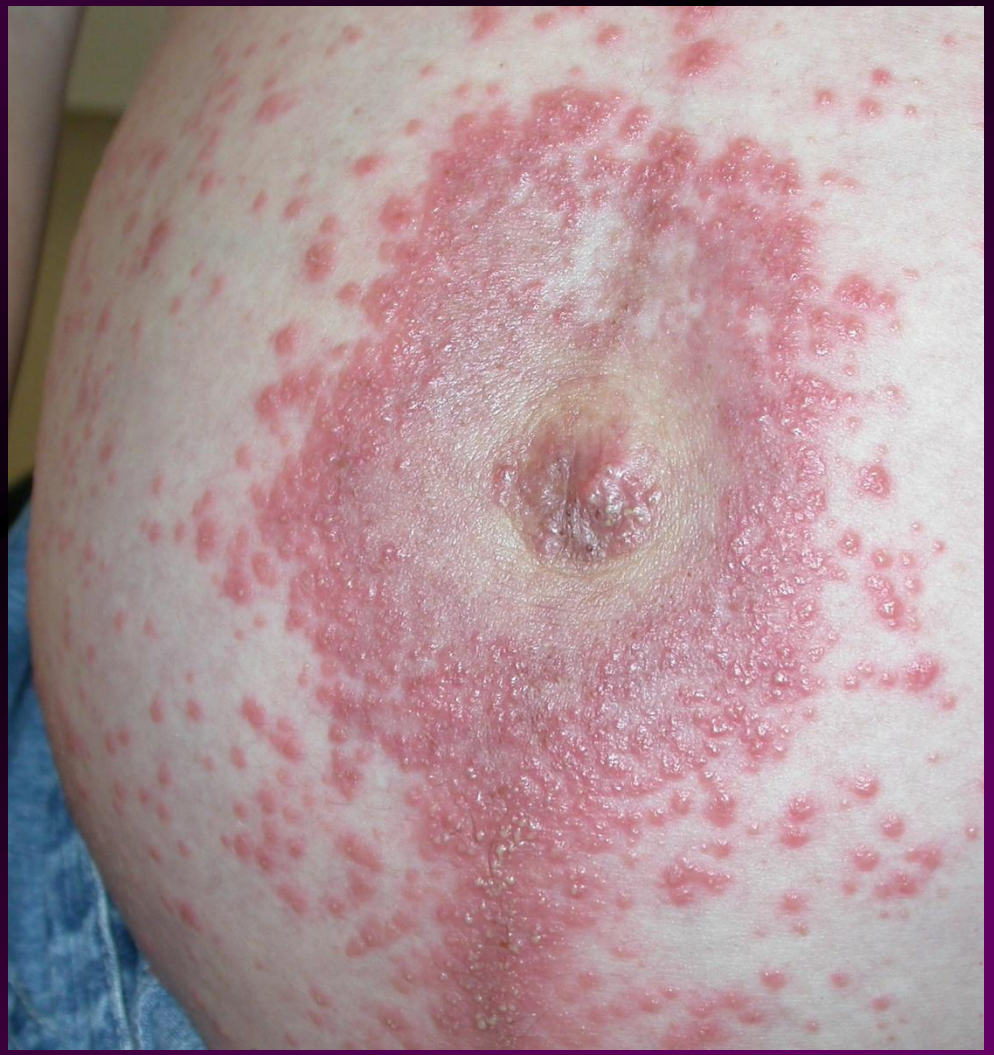


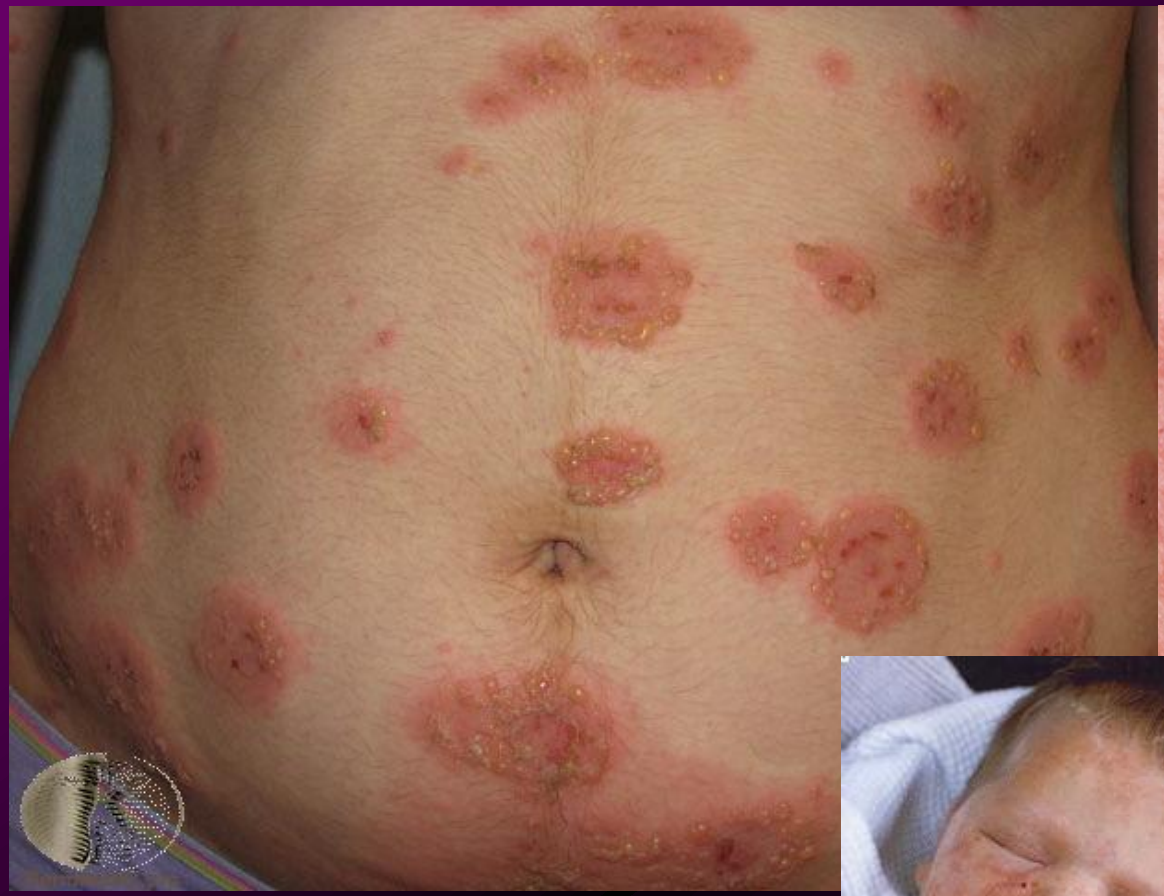
- no materno-foetal complications
- tends to recur
- treatment symptomatic with topical steroids, emollients and antihistamines; consider phototherapy

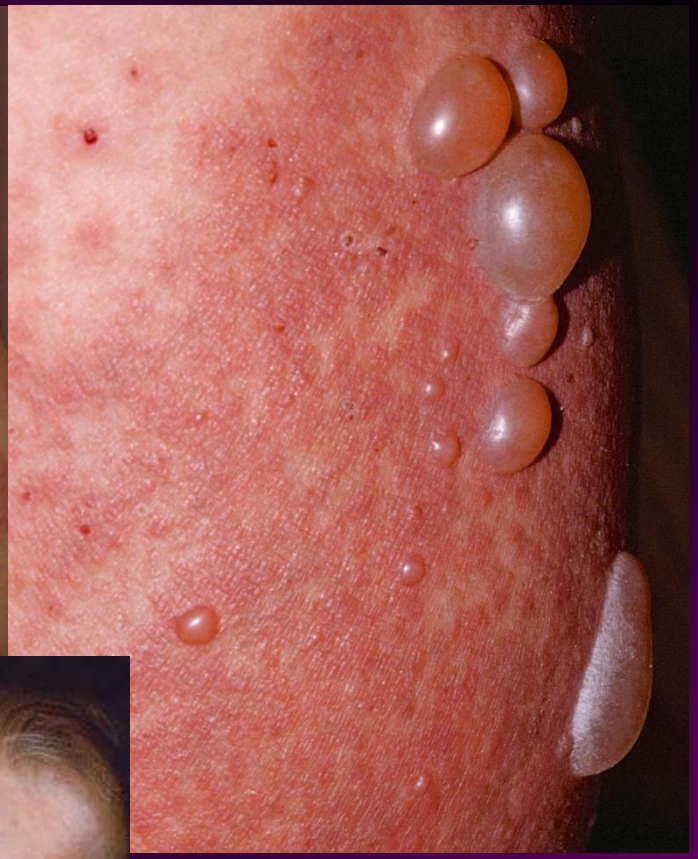
Pemphigoid gestationis

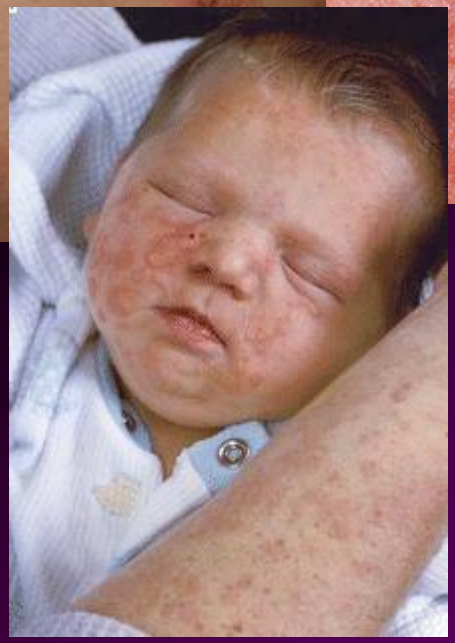
- rare - ?1:60,000 pregnancies
- BULLOUS lesions, ITCH +++
- autoimmune disease
  - HLA-DR3 and -DR4
  - C3 deposition in basement membrane zone
  - ?initiating antigen in trophoblast
- tends to recur (‘skip’ pregnancies rare)
- choriocarcinoma and hydatidiform mole

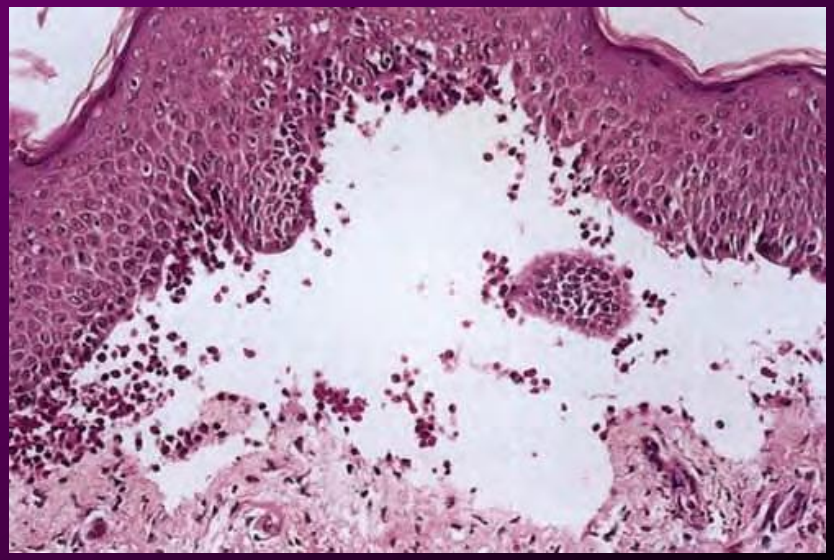
- itchy urticarial plaques, esp. umbilical, followed by bullae
  - usually third trimester onwards
  - fluctuates and may flare in run up to delivery (75%)
  - eruption is generalised
  - usually resolves after delivery in weeks or months

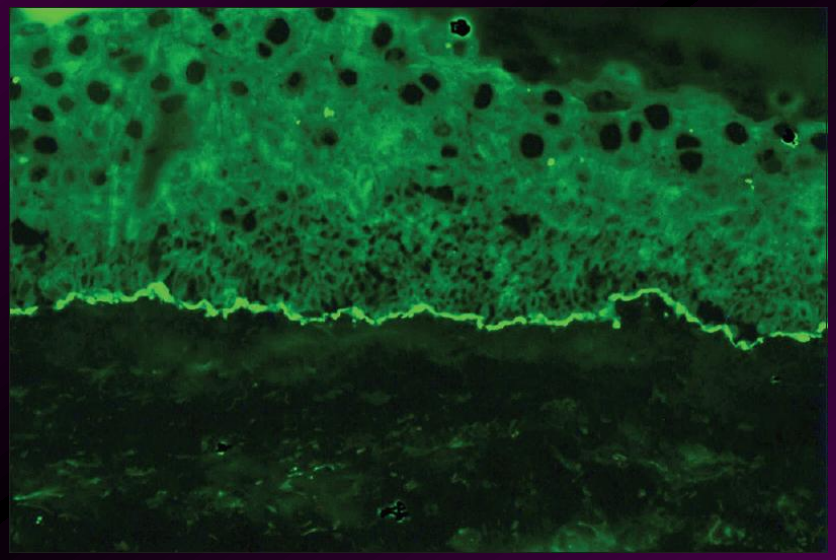






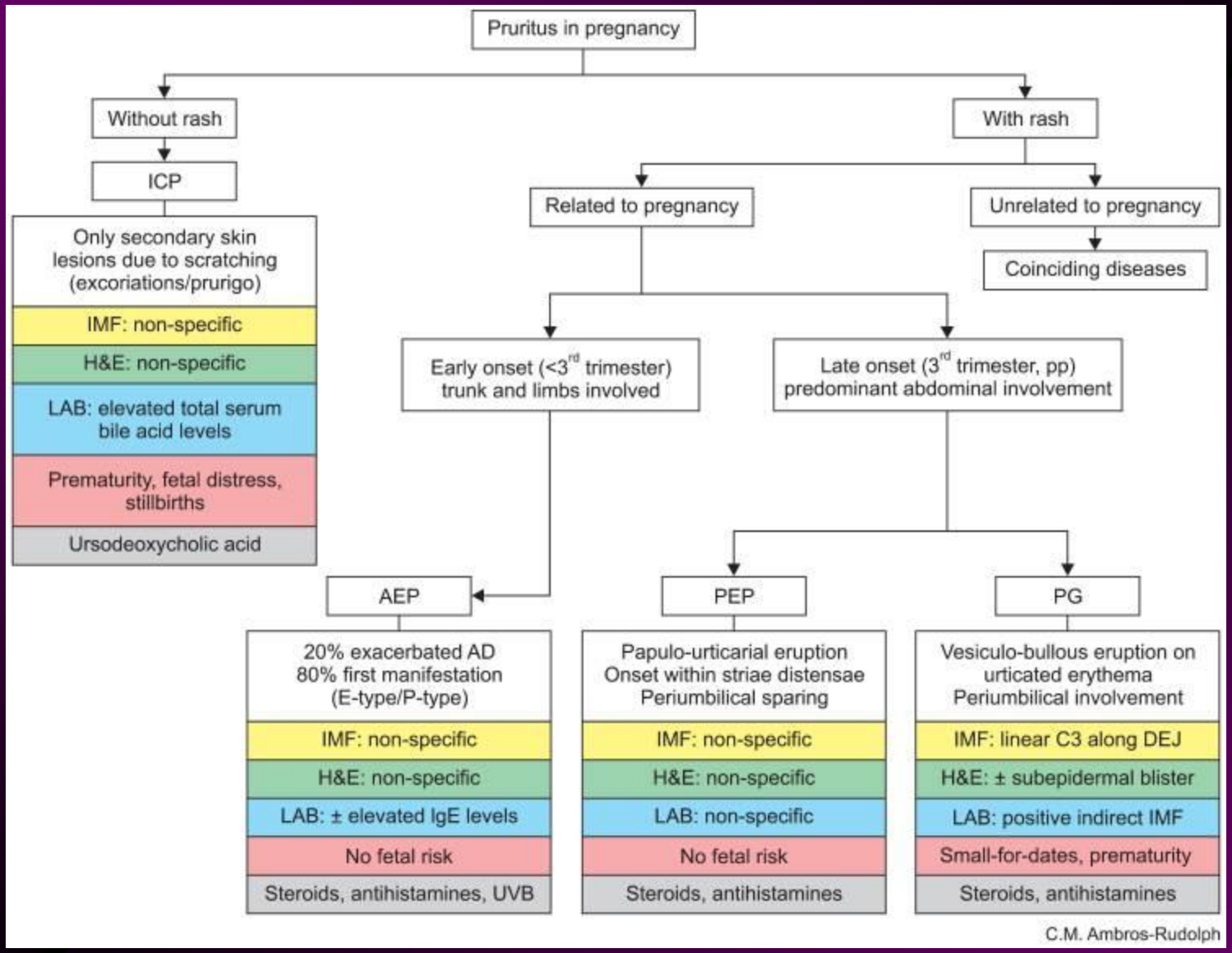






- **histology**
  - **sub-epidermal split**
  - **eosinophils**
  - **some degeneration of basal cells**
  - **C3 (100%) & IgG (30%) at basement membrane zone**
  - **antigen is BP-180 protein in hemidesmosome**

- **prognosis**
  - increased incidence of small-for-dates infants
  - tends to recur in subsequent pregnancies (often worse)
  - may recurring with oestrogen-containing contraceptive pill
- **treatment**
  - systemic steroids (prednisolone)
- **differential diagnoses**
  - in early stages, polymorphic eruption of pregnancy
- **associated diseases**
  - Graves' disease


Pruritus in pregnancy
Without rash
With rash
ICP
Related to pregnancy
Unrelated to pregnancy
Coinciding diseases
Only secondary skin lesions due to scratching (excoriations/prurigo)
IMF: non-specific
H&E: non-specific
LAB: elevated total serum bile acid levels
Prematurity, fetal distress, stillbirths
Ursodeoxycholic acid
Early onset (<3rd trimester) trunk and limbs involved
Late onset (3rd trimester, pp) predominant abdominal involvement
AEP
PEP
PG
20% exacerbated AD
80% first manifestation
(E-type/P-type)
IMF: non-specific
H&E: non-specific
LAB: ± elevated IgE levels
No fetal risk
Steroids, antihistamines, UVB
Papulo-urticarial eruption
Onset within striae distensae
Periumbilical sparing
IMF: non-specific
H&E: non-specific
LAB: non-specific
No fetal risk
Steroids, antihistamines
Vesiculo-bullous eruption on urticated erythema
Periumbilical involvement
IMF: linear C3 along DEJ
H&E: ± subepidermal blister
LAB: positive indirect IMF
Small-for-dates, prematurity
Steroids, antihistamines
C.M. Ambros-Rudolph

Dermatological treatments in pregnancy

- emollients
  - all safe, including ones containing menthol, urea, *etc.*
- try to use topical steroids of only mild or moderate potency where possible
- prednisolone is the systemic corticosteroid of choice
  - aim to keep to short courses (4/52) only
- antihistamines
  - older sedating ones generally safe
  - loratadine and cetirizine safe
- UVB phototherapy is safe

THE END