



28 - 30 July 2017

Conference for General Practice

27 July 2017 **Quality Symposium**

THE DUNEDIN CENTRE **DUNEDIN**

Genital dermatology

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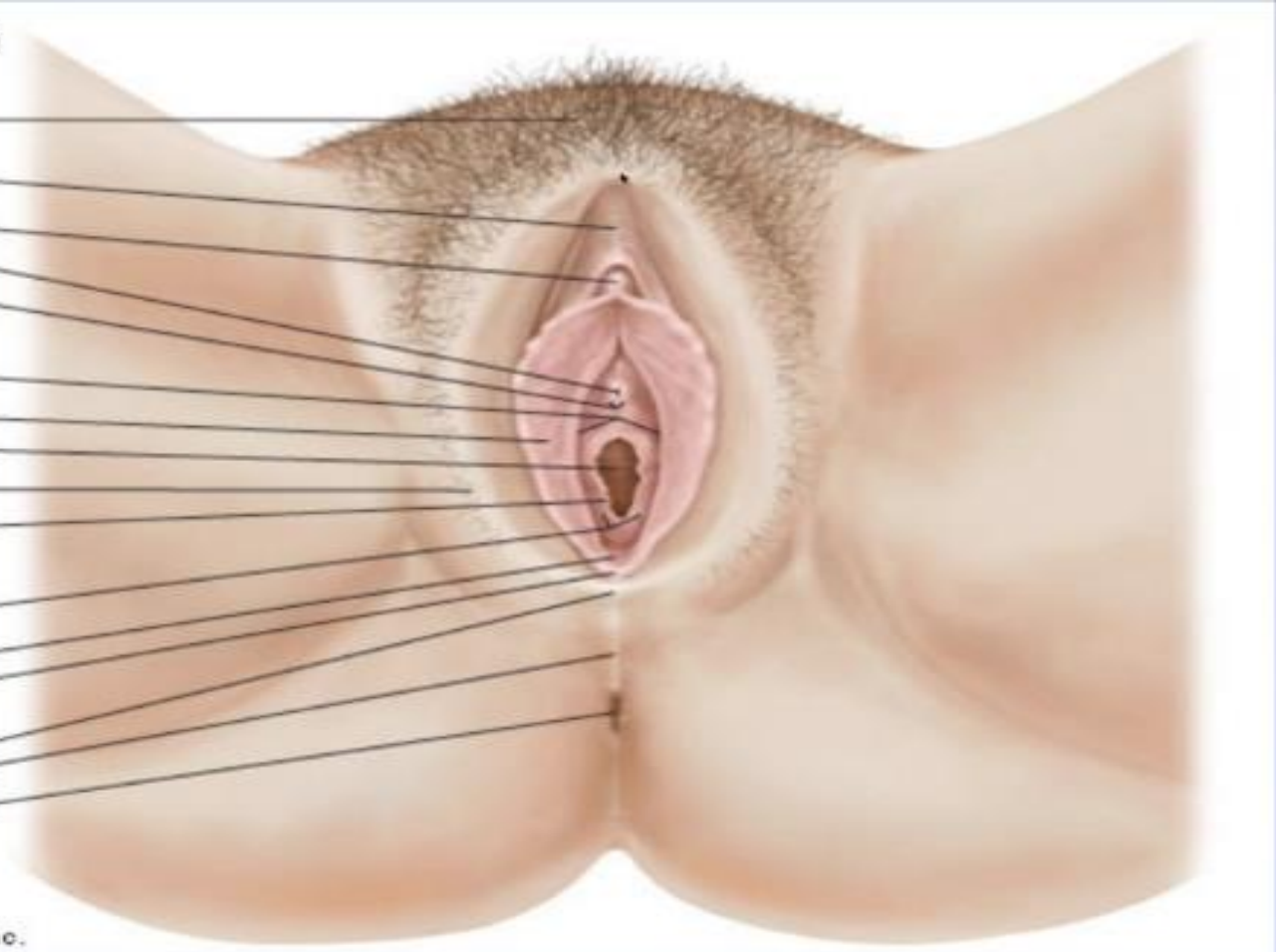
Conflict of interest

- None relevant to this talk
- DermNet New Zealand receives sponsorship and advertising from many drug companies
- I am sometimes paid by drug companies to give lectures

Vulval anatomy

Female external genitalia

mons pubis —
prepuce of clitoris —
glans of clitoris —
urethral opening (meatus) —
openings of paraurethral
(Skene) ducts —
vestibule of vagina —
labium minus —
vaginal opening —
labium majus —
hymenal caruncle —
opening of greater
vestibular (Bartholin) gland —
vestibular (navicular) fossa —
frenulum of labium —
posterior labial commissure —
perineal raphe —
anus —



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Differential diagnosis

- By age
- By symptom
- By location
- Infection
- Inflammatory dermatosis
- Tumour

Age: infancy

- Napkin dermatitis
 - Irritant contact dermatitis
 - Urine, faeces
 - *Candida albicans*
 - Seborrhoeic dermatitis
 - Other



Irritant contact *napkin* dermatitis

- Sudden onset
- Rash on skin in contact with urine
- Spares creases
- Sharply defined
- Waxy, shiny appearance



Candida albicans *napkin* dermatitis

- Rapid onset
- May involve creases
- Satellite superficial pustules, peeling



Seborrhoeic *napkin* dermatitis

- Subacute
- Involves creases
- Salmon pink thin plaques
- Associated with cradle cap



Other napkin dermatitis

- Psoriasis
- Contact allergy
- Histiocytosis X
- ...



Age: prepubertal

- Irritant contact dermatitis



Irritant dermatitis in young girls

- Itchy or painful
- Attention seeking?
 - Mothers very concerned!
- Signs are often minimal
- Treatment should also be minimal



Vulval eczema – general comments

- Cutaneous, not mucosal: labia majora
- Affects all ages including prepubertal girls and elderly
 - More common in atopics
- Irritant contact dermatitis from soap, over-washing, urine
 - Allergic contact dermatitis is much less common
- Mostly improves with mild topical steroid short term
 - Explain how washing / soap / scratching may aggravate
 - Supply emollient / barrier cream

Age: adolescence

- *Candida albicans*
- Non-sexually transmitted genital ulcer
- Herpes simplex
- Viral warts



Candida albicans

- Acute candidiasis
 - Antibiotics
 - “Curds”
 - Erythema
 - Oedema
 - Fissuring
- Responds to treatment
- May recur premenstrually



Non-sexually acquired genital ulcer

- Acute aphthous ulcers
- Can be huge, pain ++
- May follow EBV
- Recurrence may be cyclical
- Assoc. with oral aphthae
- DD Behcet disease



Herpes simplex

- Mild to severe ulceration
- Single or multiple episodes
- Lesions are grouped vesicles, erosions + swelling, lymphadenopathy



Viral warts

- Don't often present to dermatology
- Uncommon due to vaccination programme



HPV vaccination

- 9-valent vaccine is effective
 - Long lasting for boys and girls
 - Expected to prevent 20% more cancers than 4-valent vaccine
 - Fewer genital warts, reduction in cancers in young people

Age: childbearing years

- *Candida albicans*
- Irritant contact dermatitis
- Allergic contact dermatitis
- Seborrhoeic dermatitis
- Psoriasis
- Lichen simplex
- Localised provoked vulvodynia



Candida albicans

Candida albicans associated with:

- Infection – vaginal or vulvovaginal or intertrigo
- Dermatitis – metabolites are irritating to skin, activating innate immune system
- Psoriasis – macerated skin is colonised, acts as superantigen
- Lichen planus – oral anticandidal therapy can be of benefit

Candida albicans – vulvovaginal



- “Curds”
- Erythema
- Oedema
- Fissuring
- Dermatitis
- Erosions
- Satellite papules / pustules

Irritant contact dermatitis

- Excessive hygiene
 - Scrubbing
 - Soap
- Menstruation
 - Blood
 - Tampon
 - Panty liners and pads
- Intercourse
 - Injury
 - Semen
 - Lubricants
 - Sex toys
- Clothing
 - Tight underwear
 - Seams from jeans
 - Wet cotton

Candida albicans – irritant dermatitis



- Burn-like erythema:
 - Infection
 - Over-washing
 - Scratching
 - Inappropriate treatment

Excessive laundry detergent



Benzalkonium chloride in detergent



Allergic contact dermatitis

- Uncommon
- Allergens include:
 - Preservatives
 - Methyl isothiazolinone
 - Fragrances
 - Rubber accelerants
 - Clothing dyes
 - Benzalkonium chloride

Contact allergy to textile dyes in underwear



Seborrhoeic dermatitis

- Vulval seborrhoeic dermatitis often seen in association with seborrhoeic dermatitis affecting other sites
- Poorly-demarcated salmon-pink thin plaques
- Mons pubis and flexures
- May or may not be scaly
- Mild or absent symptoms

Seborrhoeic dermatitis



Seborrhoeic dermatitis in males



Seborrhoeic dermatitis in males



Seborrhoeic dermatitis

Axilla



Behind ears



Psoriasis

- Vulval psoriasis often seen in association with psoriasis affecting other sites, especially scalp and flexures
- Well-demarcated erythematous plaques
- External aspects of vulva and flexures
- May or may not be scaly
- Absent to severe symptoms

Vulval psoriasis



Psoriasis + lichen sclerosus



- Psoriasis less symptomatic but more impressive
- Psoriasis 'outside'
- Lichen sclerosus 'inside'
- Psoriasis does not alter anatomic features
- Lichen sclerosus can be destructive

Psoriasis in males



Psoriasis in males



Psoriasis



Circumscribed erythematous scaly plaques

Flexural psoriasis



Lichen simplex

- Chronic, intensely itchy, lichenified dermatitis
 - Consider potential causes of chronic itch
 - Irritant dermatitis, psoriasis, lichen sclerosus, neuropathy



Lichen simplex



- Unilateral, labium major
- Due to rubbing, scratching
- Moderately well-demarcated
- Skin thickening
- Increased skin markings
- Skin coloured
- Dyspigmentation common

Candida albicans - lichen simplex



- Secondary lichenification from chronic or recurrent dermatitis associated with culture-positive *Candida albicans*

Lichen simplex



- Perineum
 - ?*Candida*
 - ?Lichen sclerosus
- Skin thickening
- Fissuring
- Skin coloured
- Dyspigmentation common

Lichen simplex



Localised provoked vulvodynia

- Pain experienced in introitus during intercourse
 - Sometimes also when inserting tampon
 - Confirmed by tenderness on cotton tip pressure
- Absence of signs, ie, vulva appears normal

Scrotodynia: burning red scrotum



Fissuring of posterior fourchette

- Fissuring occurs because of thin stretched tissue
- Anatomic
- Oestrogen deficit
- *Candida albicans*
- Lichen sclerosus

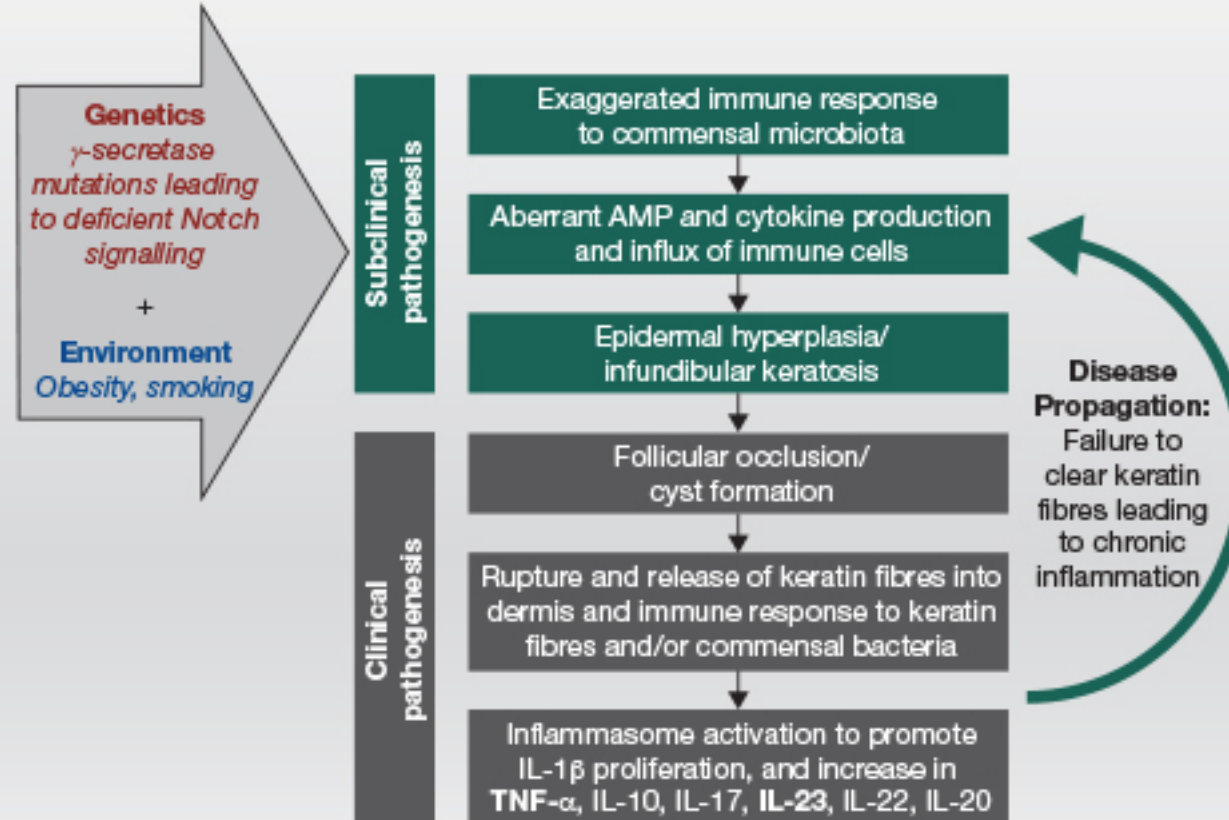


Hidradenitis suppurativa

- Chronic or relapsing autoinflammatory follicular disease
- Comedones, inflammatory papules
- Sinuses, sterile abscesses, scarring
- Associated with obesity, metabolic syndrome, polycystic ovaries
- Aggravated by HGI carbohydrates, smoking



HS: A Multifactorial Autoinflammatory Pathogenesis



Hidradenitis suppurativa



Hidradenitis suppurativa



Hidradenitis suppurativa in males



Age: postmenopausal

- Irritant contact dermatitis
- Bacterial vaginosis
- Lichen sclerosus
- Generalised vulvodynia

Irritant contact dermatitis



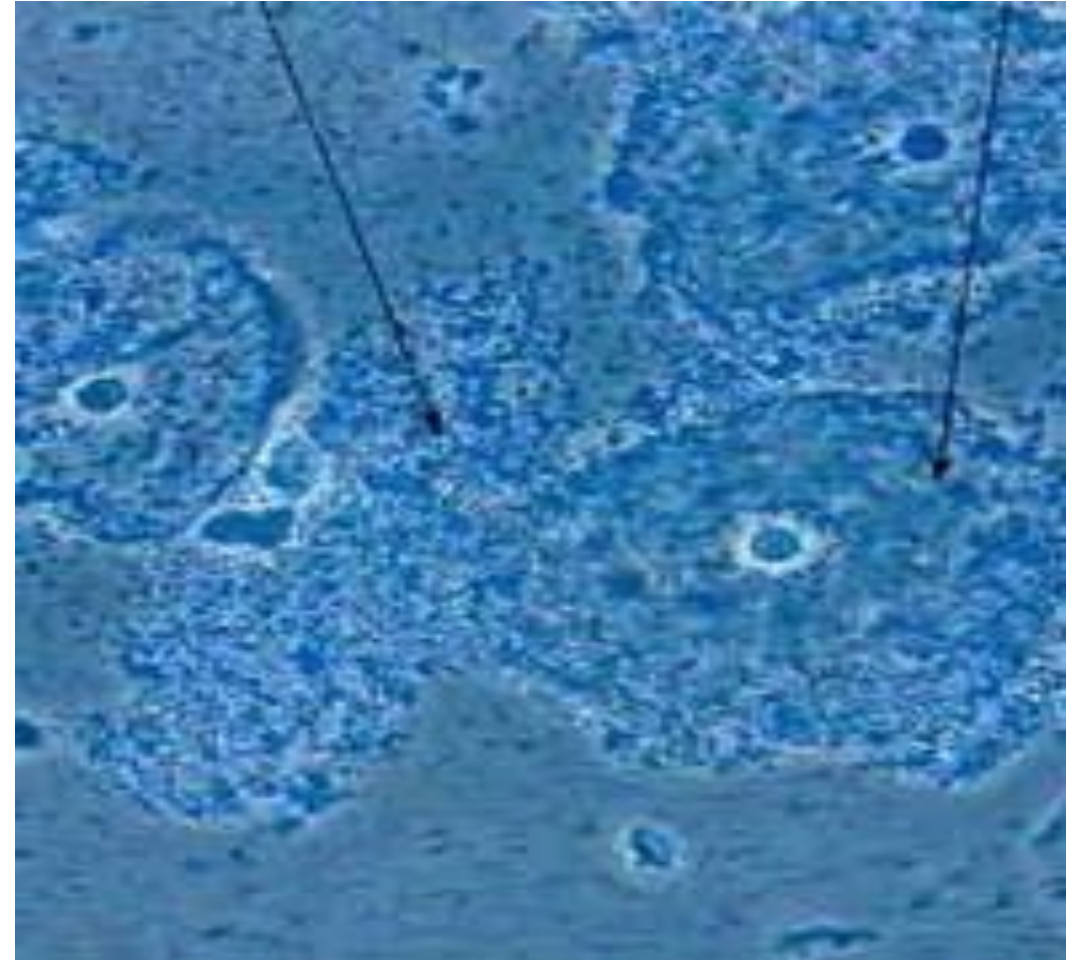
If severe:

- Burn-like
- Glazed erythema
- Superficial erosions
- Oedema

Faecal and urinary incontinence

Bacterial vaginosis

- Mild symptoms
 - Malodorous, sticky, frothy discharge
 - Stinging, itching
- Mild signs
 - Erythema, fissuring around introitus
- May be chronic or relapsing



Lichen sclerosis

- Itch: nil to very severe; intermittent to continuous
- Soreness: nil to very severe; may be localised
- Dyspareunia / apareunia
 - Itch
 - Soreness
 - Fissuring due to sclerosis
 - Introital narrowing due to agglutination / bridging

Lichen sclerosis

- Most often affects labia minora, clitoral hood, perineum
- May be unilateral, usually bilateral / symmetrical
- Perianal in 50%
- Extragenital in 15%
- Most are ≥ 50 years but children may be affected
- May have associated autoimmune conditions
 - 25% thyroid antibodies; 20% hypothyroid
 - 10% psoriasis
 - 5% morphea, vitiligo, lichen planus, celiac etc

Lichen sclerosus



- Distribution: figure of 8 with wings
 - Usually bilateral
 - Sometimes unilateral
- Colour – white, crinkly ('cigarette-paper')
- Sclerosis - firm
- Anatomic change - destructive

Lichen sclerosus



- Labia minora / perineum
- Spotty white

Lichen sclerosus



- Labia minora / perineum / perianal / labial sulci
- White spots

Lichen sclerosus



- White, like vitiligo
- Anatomic change
 - Loss of labia minora

Lichen sclerosus



- LS + vitiligo
- Anatomic change
 - Loss of labia minora

Lichen sclerosus

- Perianal / perineum
- White spots



Lichen sclerosus



- Flattening of clitoral hood
- Resorption of labia minora
- Haemorrhages

Lichen sclerosus



- Bridging / fusion / agglutination of left and right labia
- Introital narrowing

Lichen sclerosus



- Severe introital narrowing
- Splitting of posterior forchette

Lichen sclerosus



- Hyperkeratosis
 - Consider biopsy
 - Esp. if tx-resistant
- DD = VIN

Lichen sclerosus in males



Lichen sclerosus: extragenital



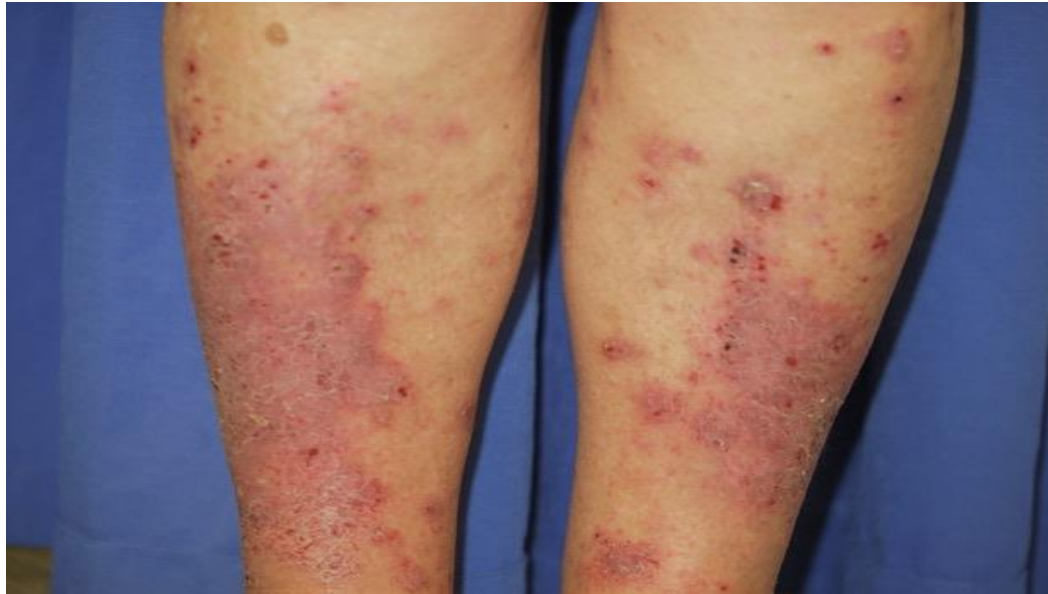
Lichen planus

- Soreness: nil to very severe; may be localised
- Itch: nil to very severe; intermittent to continuous
- Red glistening painful mucosal patch
- Loss of labia minora
- Dyspareunia / apareunia
 - Itch
 - Soreness
 - Fissuring due to sclerosis
 - Introital narrowing due to agglutination / bridging

Cutaneous lichen planus



Cutaneous lichen planus



Oral lichen planus



Erosive lichen planus



Erosive lichen planus



Erosive lichen planus



Lichen planus in males



Generalised vulvodynia

- Persistent or variable pain
 - Ill-defined
 - May be positional
- Burning, stinging, stabbing
- Associated urethral symptoms eg frequency
- May have history of pelvic or lumbosacral injury or surgery
- Examination normal or erythema
 - May have hyperaesthesia (cotton tip experienced as painful)

Vulval symptoms

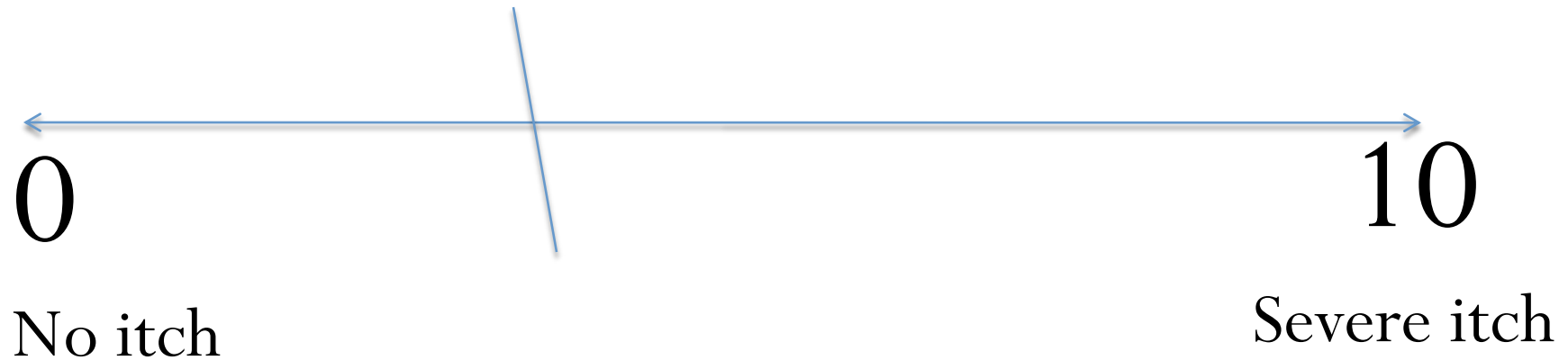
- Itch
- Pain
- A lump
- Bleeding

Itch

- Dermatitis
 - Lichen sclerosus
 - Lichen simplex
-
- There should be signs to clarify diagnosis
 - If no signs, assume irritant contact dermatitis

Pruritus

- Maybe unremitting and extremely severe
- Scratching may cause lichenification, whatever the cause
- Assess using linear analogue scale or verbally:
“Give me a number between 0 (no itch) and 10 (worst imaginable)”

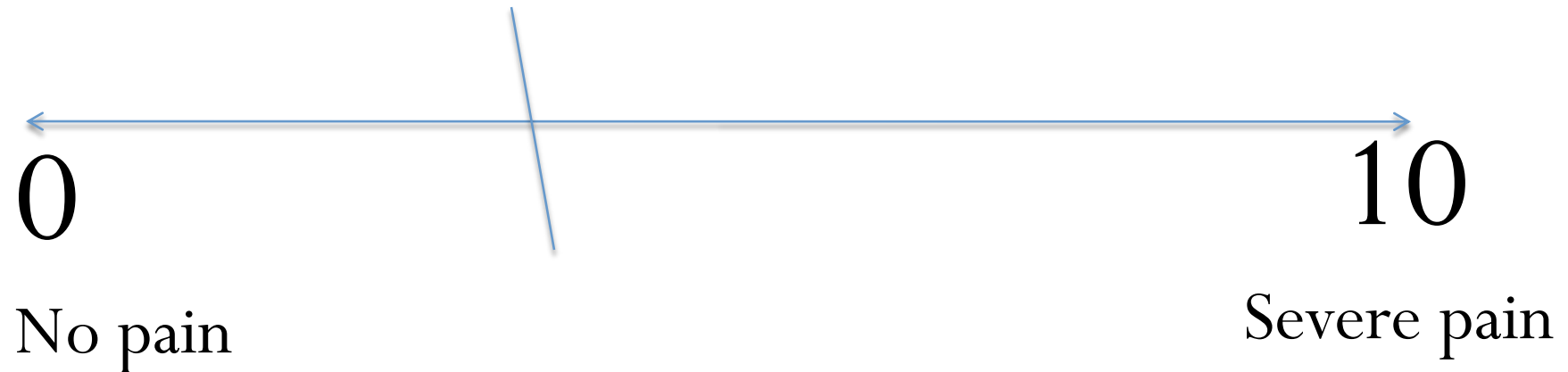


Pain

- Due to specific disorder, eg herpes simplex, lichen planus, or
- Vulvodynia – vulval pain ≥ 3 months without clear identifiable cause +/- potential associated factors:
 - Comorbidities
 - Genetics
 - Hormones
 - Inflammation
 - Musculoskeletal
 - Neurologic
 - Psychosocial
 - Structural defect

Soreness

- Soreness associated with inflammatory skin disease may be mild tenderness or stinging, to very severe pain
- Pain may only be associated with intercourse (dyspareunia), and can prevent it (apareunia)
- Erosive lichen planus > lichen sclerosus



A lump

- Benign or malignant?
 - Benign lesions tend to be stable
 - Malignant lesions enlarge over months
- Diagnosis?

www.dermnetnz.org/site-age-specific/vulval-lesions.html

Vulval bleeding

- Angiokeratomas
- Malignant tumour
- Scratching
 - Lichen sclerosus



Angiokeratomas



Angiokeratomas in males



Malignant tumour

- Many cancers are large before they bleed or ulcerate
- Irregular location, shape, colour, structure
- Many have HPV, VLS/VLP



Squamous intraepithelial lesion



Squamous cell carcinoma

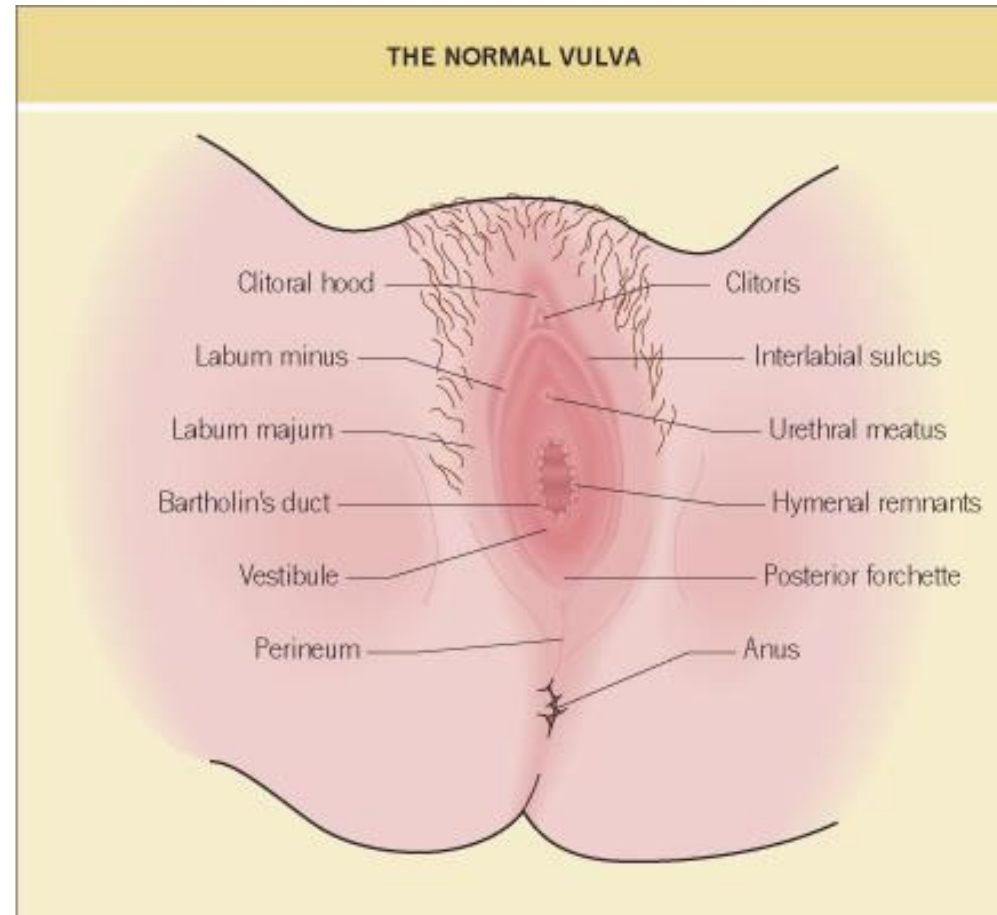


Squamous cell carcinoma in males

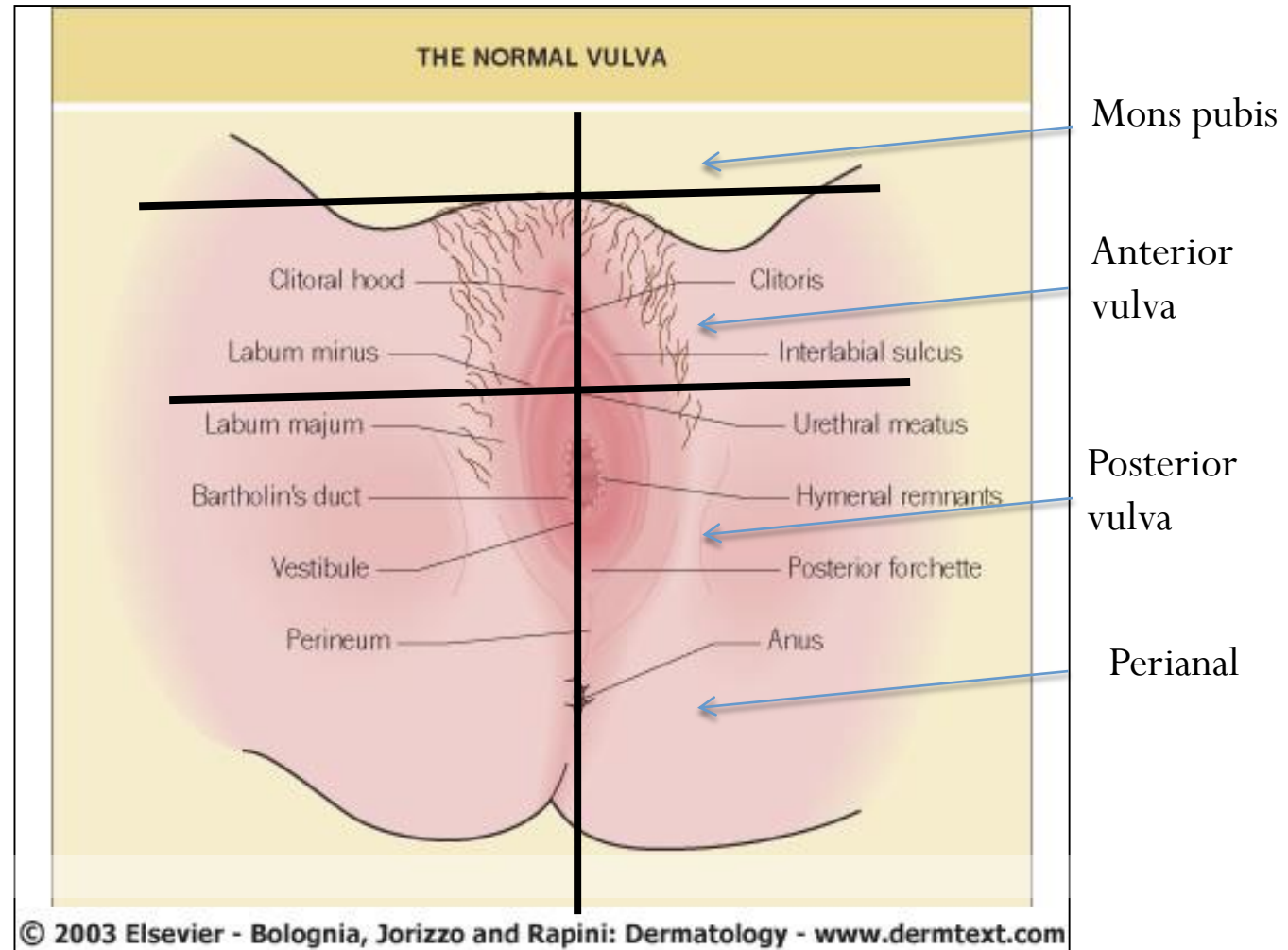


Location

- Location of symptoms / signs can aid diagnosis

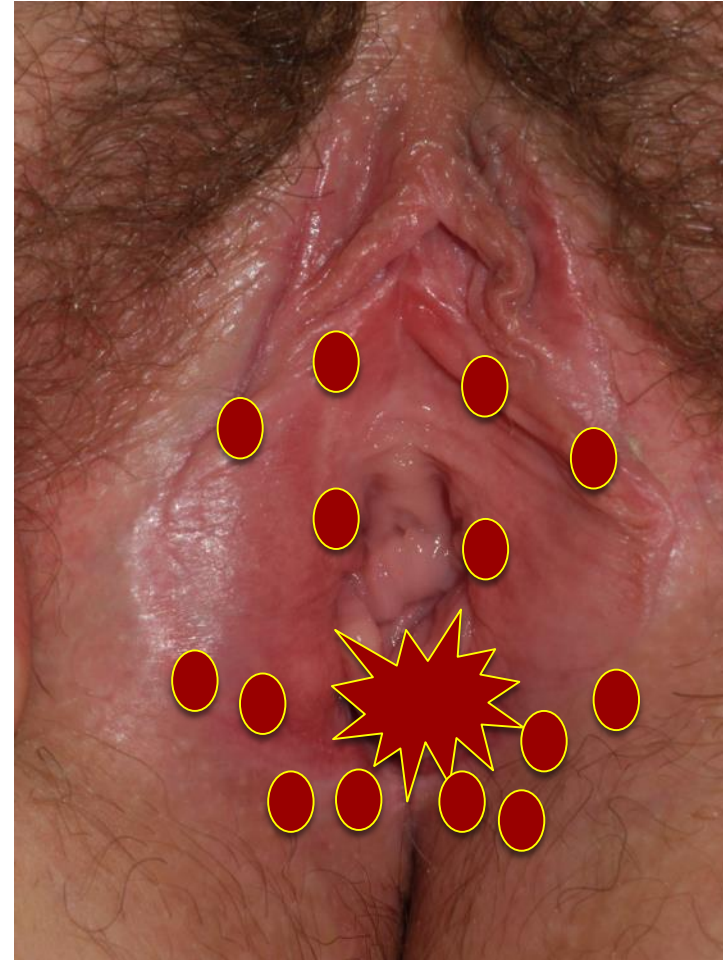


Examination of the vulva



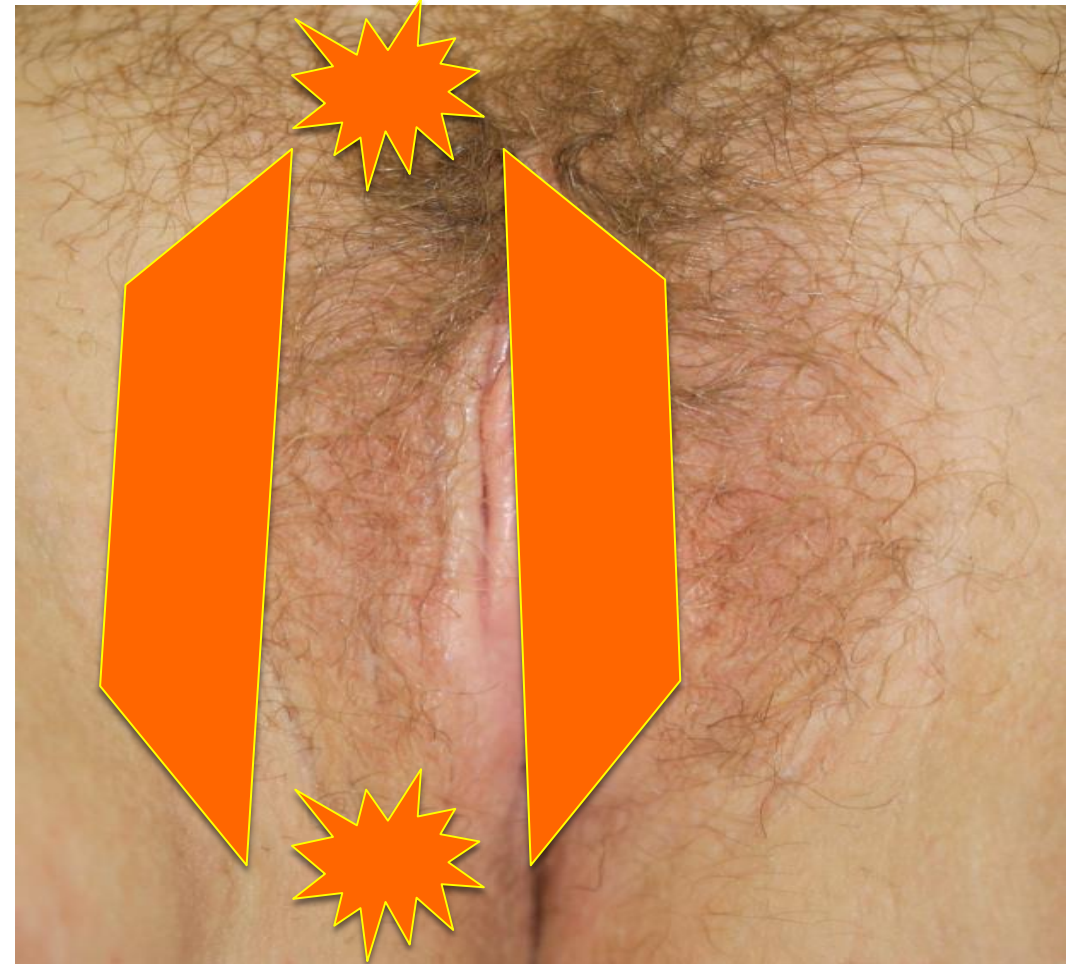
Location may help diagnosis

- *Candida albicans* infection
 - Introital



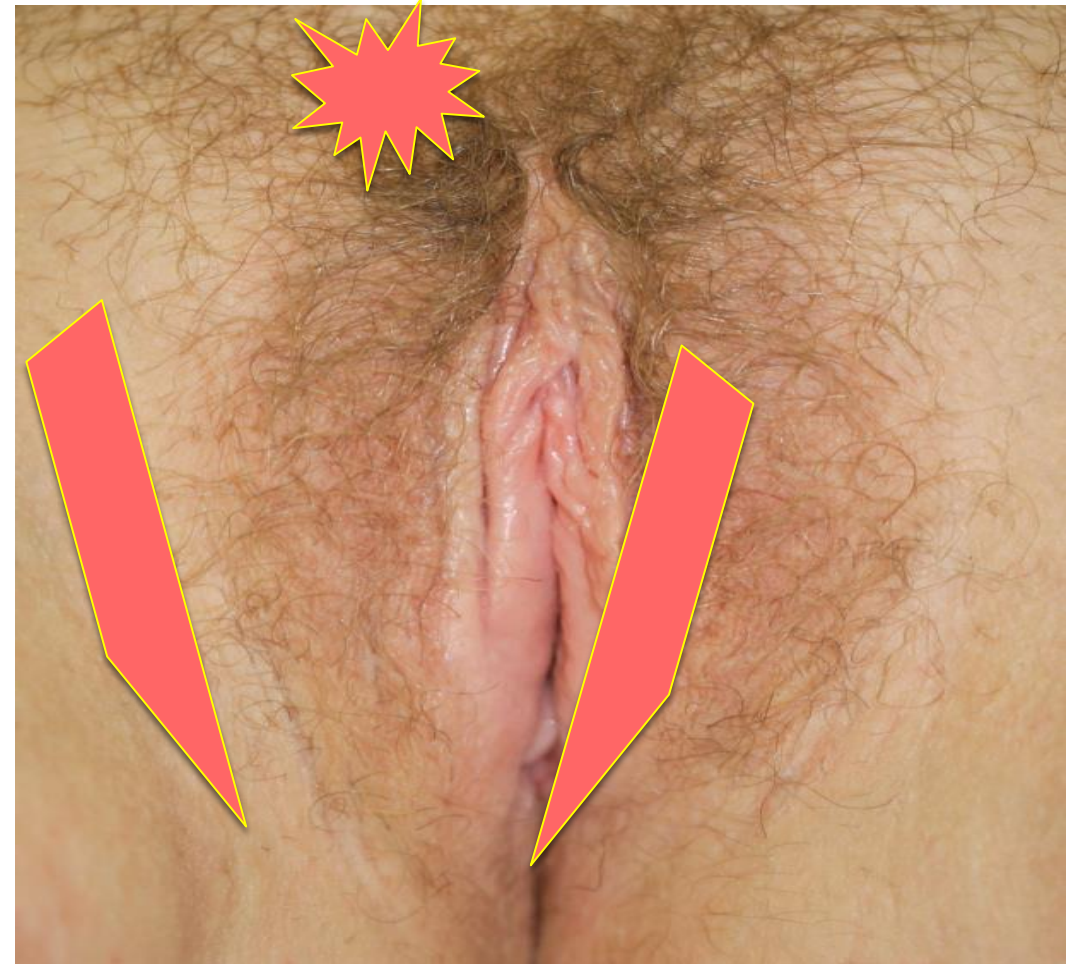
Location may help diagnosis

- Irritant contact eczema
 - External



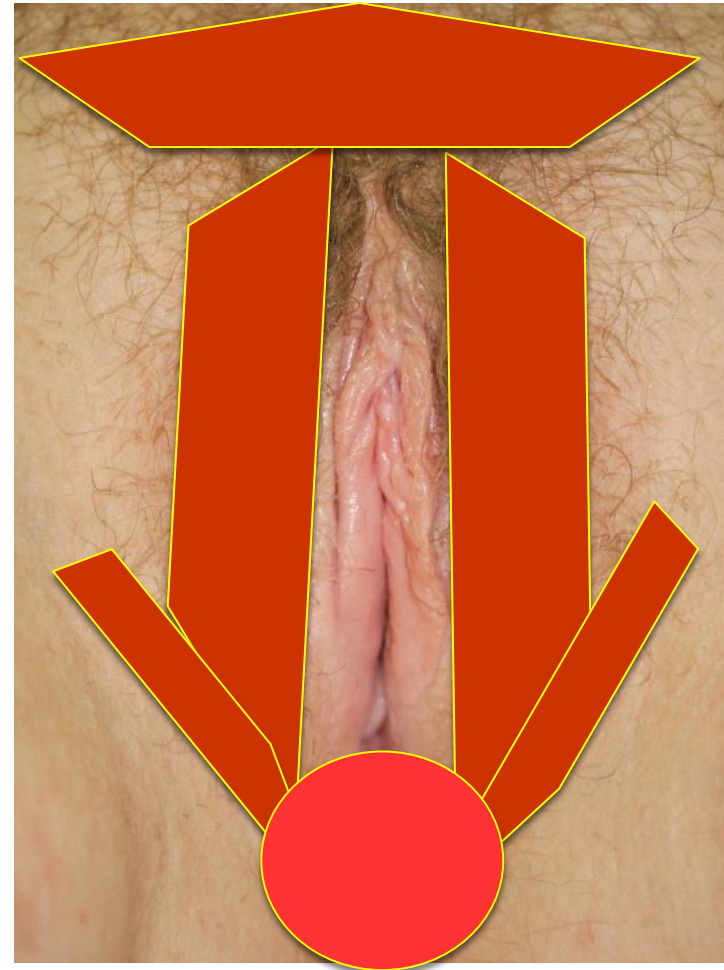
Location may help diagnosis

- Seborrhoeic dermatitis
 - Flexures



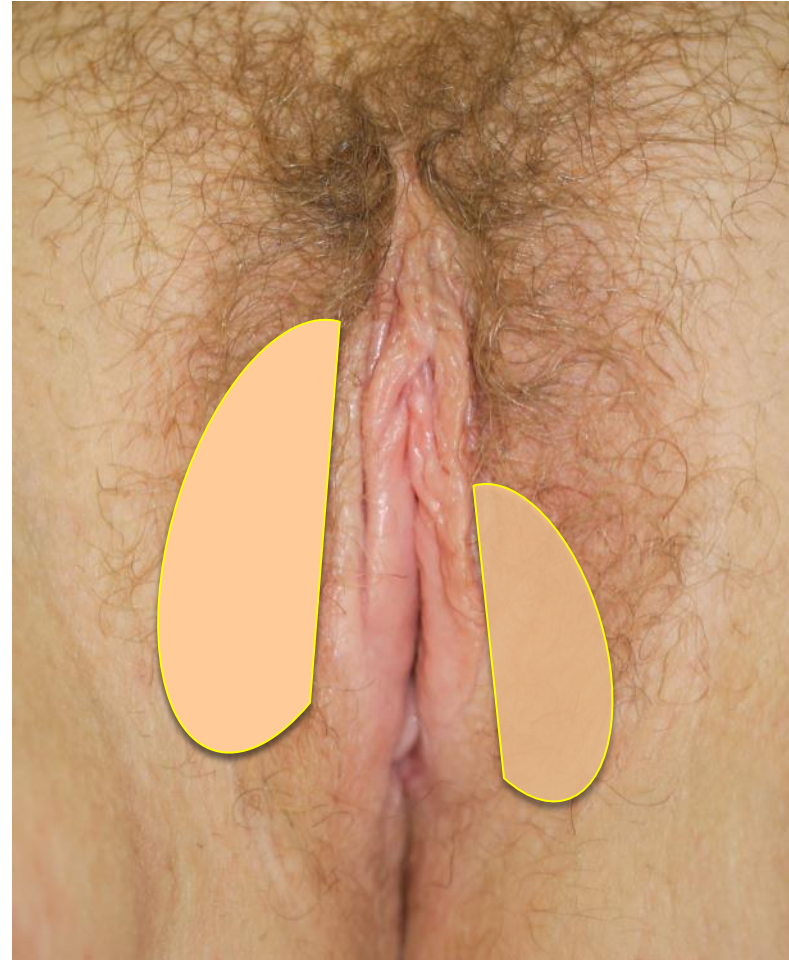
Location may help diagnosis

- Psoriasis
 - Hair-bearing, flexures



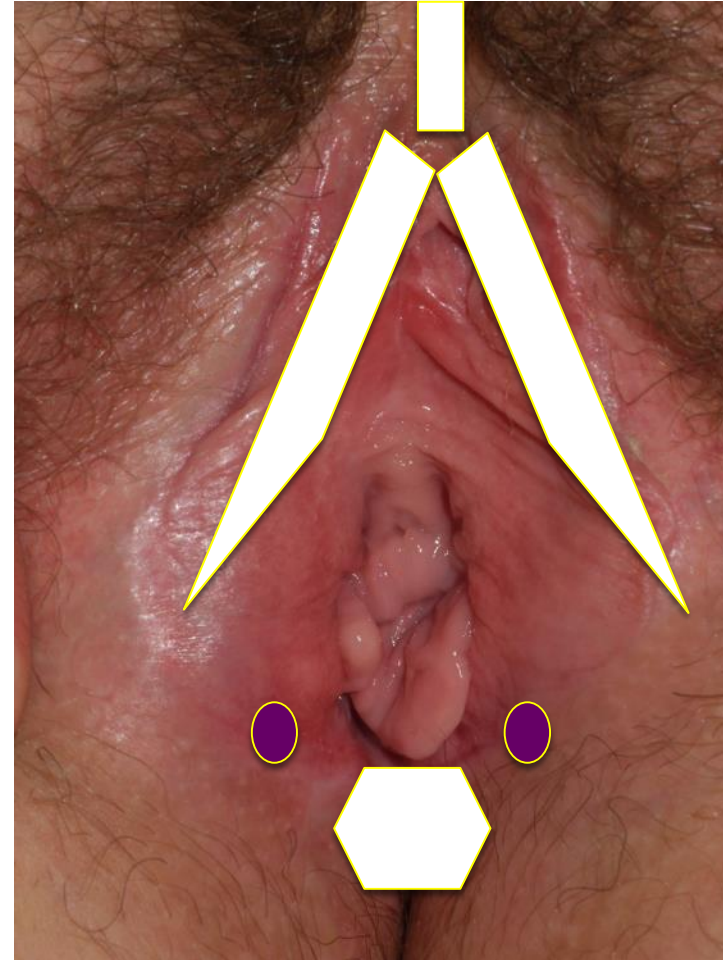
Location may help diagnosis

- Lichen simplex
 - Labia majora
 - May be unilateral
 - Dominant side



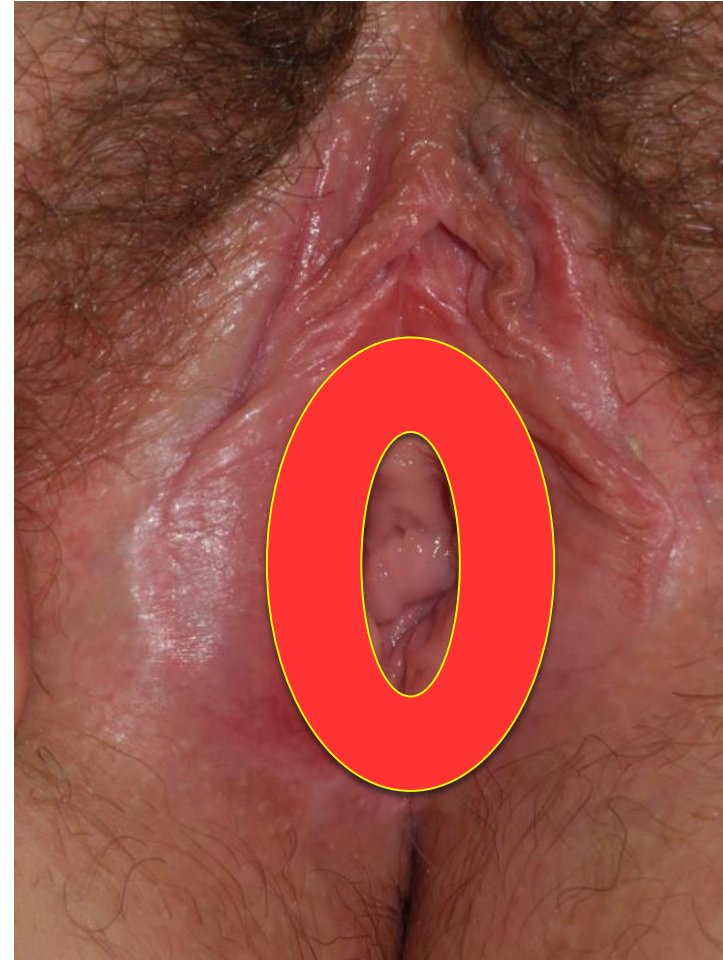
Location may help diagnosis

- Lichen sclerosus
 - Figure of 8
 - Glabrous
 - Clitoral hood
 - Labia minora
 - Labial creases
 - Perineum
 - Perianal



Location may help diagnosis

- Erosive lichen planus
 - Unilateral or bilateral
 - Diffuse or patchy
 - Introital
- Plasma cell vulvitis



Common vulval inflammatory diseases

- Vulval dermatitis
 - Usually irritant / nonspecific; any age
- Lichen simplex
 - Intensely itchy; often unilateral; lichenified labium major
- Lichen sclerosus
 - Variable itch; symmetrical white plaques; destructive
- Lichen planus
 - Cutaneous, mucosal or erosive; painful
- Hidradenitis suppurativa
 - Axilla, submammary areas often affected; inverse acne

Lesions

- Squamous intraepithelial lesions =VIN
- Squamous cell carcinoma
- Basal cell carcinoma
- Paget disease
- Melanoma
- Other lumps and bumps

www.dermnetnz.org/site-age-specific/vulval-lesions.html

Management of *Candida albicans*

- Confirm with high vaginal swab
 - Not necessary in simple cases
- Topical therapy vs. oral azole
 - Topical (intravaginal cream / pessaries):
inexpensive but potential irritant
 - Oral (fluconazole / itraconazole):
convenient but expensive, drug interactions
- Hydrocortisone cream
 - If lichenified, short-term more potent topical steroid

Management of irritant dermatitis

- Reduce contact with irritants
 - Napkins, hygiene, nursing care
 - Barrier creams, soap substitutes
 - Avoid unnecessary washing, wiping
- Hydrocortisone cream / ointment
 - Stronger topical steroids are not particularly effective
- Soothing emollients frequently

Management of seborrhoeic dermatitis

- Antifungal shampoo or cream as required
 - Ketoconazole, miconazole
- Hydrocortisone cream
 - Stronger topical steroids are not particularly effective

Management of lichen simplex

- Potent topical corticosteroid ointment
 - Betamethasone valerate, methylprednisolone, mometasone furoate
- Daily for 4 to 6 weeks then weekend pulses
- May rarely require ultrapotent topical steroid
 - Clobetasol, betamethasone dipropionate
- May require tricyclic if neuropathic origin likely
 - Amitriptyline 5–30 mg at night
- Must follow up
 - Topical steroid misuse is common!

Management of lichen sclerosis

- First make the diagnosis. Are you sure?
 - If not sure, treat as irritant dermatitis and refer
- Ultrapotent topical steroid, usually clobetasol ointment
 - Once daily until clear (one to three months)
 - Then alternate days for the same duration
 - Then once or twice per week long-term
 - or PRN
 - Adjust frequency if necessary
- Explain to patient precisely where to apply the cream
- Clinical photographs are useful for follow-up

Lichen sclerosis – oestrogen cream

- Oestrogen cream has no effect on lichen sclerosis
- Oestrogen cream relieves atrophic vulvovaginal atrophy
- We usually prescribe it for postmenopausal women with LS
 - To relieve dryness
 - To reduce dyspareunia

Topical steroids

- Inappropriate use leads to:
 - Cutaneous atrophy (?not mucosal atrophy)
 - Infection especially *Candida albicans*
 - Periorificial dermatitis
 - Burning, erythema

Vulval biopsy

- Why are you doing this biopsy?
 - To make or confirm diagnosis of inflammatory disease
 - Referral might be better
 - In case of cancer
- Select site carefully
 - Multiple sites if multiple morphologies
 - Consider teledermatology referral to help select site for bx
- Photograph before biopsy
- Clinicopathological correlation

Lichen sclerosus



- Hyperkeratosis despite tx
 - Consider biopsy
 - DD = VIN

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