CASE SIX

Short case number: 3_29_6
Category: Endocrine & Reproductive Symptoms
Discipline: Obstetrics & Gynaecology
Setting: General Practice
Topic: Vulval / Vaginal itch. [SDL]

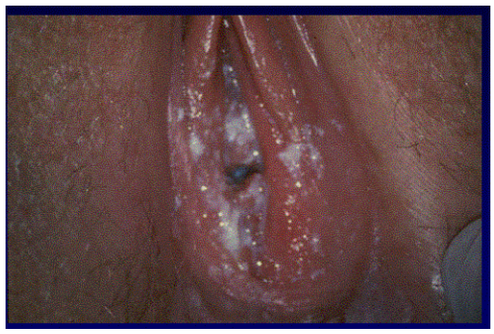
Case

Angie Jones is a 38-year-old female who presents with itch and discomfort in her vaginal area. She experiences these symptoms often and they usually improve with clotrimazole cream.

This is the first time she has had to see a doctor about the symptoms, she has already tried clotrimazole cream and it has not helped. The itch is 'driving her crazy' especially at night.

Questions

1. What are the key components of the history and how will the features of history assist in distinguishing between the different causes of vulval itch?
2. What are the key components of the physical examination and why?
3. Angie has a history of dermatitis and you think that this may be the cause of her problems, summarise the clinical features, aetiology and pathophysiology of the following inflammatory skin conditions; eczema, lichen sclerosis, lichen planus, seborrhoeic dermatitis and eczema.
4. On examination you observe the clinical features pictured below. You suspect that Angie has candidiasis, outline the clinical features, pathogenesis and management of vulval candidiasis and tinea cruris.



5. Another frequent cause of recurrent vulval itch is genital herpes; outline the features of genital herpes under the following headings, clinical features, aetiology, pathogenesis and management.
6. What are the clinical features seen in genital warts? Outline the aetiology, pathogenesis and management of genital warts.

Suggested reading:

1. Abbott, J., Bowyer, L., & Finn, M. (2014). *Obstetrics and Gynaecology: an evidence-based guide (2nd ed).* Australia, Elsevier
2. Dewhurst's Textbook of Obstetrics & Gynaecology, Edmonds K [editor]. Blackwell Publishing. 2007. Pg 578-584
3. Colledge, N.R., Walker, B.R, Ralston, S.H. & Penman, I.D. (eds). (2014) Davidsons Principles and Practice of Medicine. (22nd ed). Edinburgh: Churchill Livingston.
4. New Zealand Dermatological Society Incorporated. https://dermnetnz.org/topics/the-itchy-vulva/ [Accessed April 2021]

ANSWERS

1. **What are the key components of the history and how will the features of history assist in distinguishing between the different causes of vulval itch?**

   History

   - Duration of the problem
   - Degree of discomfort/pain
   - Position of pain/discomfort (can the woman point to a specific area or is it more generalised)
   - Relationship to sexual intercourse
   - Lesions elsewhere (assoc skin or mucosal disorders)
   - Other associated symptoms
   - Recent travel
   - General gynaecological and medical history (including any previous vaginal surgery, diathermy, laser)
   - Medications: vaginal and vulvar treatments (possible contact dermatitis)
     HRT
     Recent antibiotics (argument re association with candidiasis)

2. **What are the key components of the physical examination and why?**

   Examination (clean the area with wet cotton balls if required)

   INSPECTION

General	Eczema
	Psoriasis
	Lichen planus
Genital	Condylomata acuminata (exophytic warts)
	Molluscum contagiosum
	Sebaceous cysts
	Bartholin cysts
	Naevi
	Skin discolouration (white, red, brown)
	Vesicular lesions
	Ulcerative lesions (eg, HSV)
	Hair distribution and extent (alopecia areata, evidence of virilisation)

   PALPATION

   Tenderness or underlying masses (eg. cysts)

   LABIA MINORA

   Presence/absence

   Developmental abnormality

   CLITORAL AREA

   Hood

   Clitoris (normal size and surface)

   VESTIBULE

   Urethral opening, vaginal aperture, epithelial surface (colour, texture and palpation)

   PERIANAL AREA

   Perianal skin changes

3. Angie has a history of dermatitis and you think that this may be the cause of her problems, summarise the clinical features, aetiology and pathophysiology of the following inflammatory skin conditions; eczema, lichen sclerosis, lichen planus and seborrhoeic dermatitis.

Clinical features	Aetiology	Pathophysiology
Eczema		
Frequent and occurs in various clinical situations eg. Atopic skin disease, seborrhoeic eczema, irritant dermatitis, contact allergic dermatitis and frictional eczema Vulval areas: macerated greyish-white dulling of the normal pink colour		Inflammation of the epidermis and dermis
Lichen Sclerosis		
Seen in both sexes, at any body site. Most commonly affects genital skin of white women. Children: Phimosis due to LS. In females affects the perianal skin causing painful defaecation (presenting as constipation) Adults: Pruritis (rarely pain) Pale skin around the vulva and perianal areas. In later stages fusion of the clitoral hood and labia minora may occur	Destructive inflammatory skin condition with a predilection for genital skin. Likely Autoimmune disorder.	Lymphocytic inflammation leads to liquefactive degeneration of the basal cell layer with destruction of melanocytes and stimulation of dermal fibroblasts to produce a vast sheet of homogenised collagen in the upper dermis. The epidermis sometimes responds epidermal proliferation, causing thickening and hyperkeratosis. Increased incidence of SCC in LS.
Lichen planus		
'The blue rash' – small purplish polygonal papules with shiny surfaces. Most frequently found on inner wrists, axillary fold and genitalia. Lesions are intensely itchy Age 25-40y, rare in children and old age Natural history 9-18 months, though some have many years	Cause is unkown, but involves a lymphocyte mediated attack. Likely autoimmune	T lymphocytes mount the immunological attack against basal keratinocytes. Can be triggered by frugs (eg. B-blockers, gold)
Erosive Lichen planus		
Rare condition, presents with pain, caused by erosions of the labia minora and vestibule. The labia majora is unaffected, but anal/oral/vaginal mucosa may be.	Aggressive form of LP	

Leads rapidly to scarring and loss of normal architecture. • Severe pain • Bleeding dyspareunia • Vaginal discharge • Eroded inner lips labia minora • Marginal milky striae • Vaginal erosions • Gingivae denuded and ulcerated		
Seborrhoeic dermatitis		
Itchy, red, scaly eruptions with a predilection for face and scalp skin. Vulval itching	Likely genetic tendency	? reaction to commensal lipophilic yeasts

4. On examination you observe the clinical features pictured below. You suspect that Angie has candidiasis, outline the clinical features, pathogenesis and management of vulval candidiasis and tinea cruris.

<u>VULVAL CANDIDIASIS</u>
CLINICAL FEATURES
Irritation, 'cottage cheese' discharge
PATHOGENESIS
- Candida can reach the vagina via oral ingestion (it is not sexually transmitted, no need to treat partners)
- Infection almost always occurs in the insensitive vaginal lumen. The resulting 'burning' of the sensitive vulval epithelium is caused by the yeasts metabolites

MANAGEMENT
- Treatment needs to be directed towards the vaginal source of the infection (applying anti-fungal cream to the vulva may be ineffective and worsen contact dermatitis)
- Swabbing as necessary is the only means of selecting appropriate treatment

GENERAL
- Avoid soap (replace with QV, sorbolene, saline)
- Do not use home remedies, over-the-counter preparations and non-prescribed medications
- Avoid artificial lubricants

SPECIFIC
- Imidazole cream, inserted nightly for 1 week

<u>TINEA CRURIS</u>
CLINICAL FEATURES
- This common world-wide ringworm affects the groin. Itchy erythematous plaques extend from the groin flexures on to the thighs.

PATHOGENESIS
- Usually caused by *Trichophyton rubrum*.

MANAGEMENT

- The diagnosis should be confirmed by skin scraping
- Treatment can be topical (terbinafine or miconazole cream) or systemic (terbinafine, griseofulvin or itraconazole).

5. Another frequent cause of recurrent vulval itch is genital herpes; outline the features of genital herpes under the following headings, clinical features, aetiology, pathogenesis and management.

Clinical features

First infections may be mild and unnoticed, but should lesions develop, the severity is generally greater than in recurrences.

- Penile ulceration from herpetic infection (most frequent on the glans, foreskin and shaft of the penis). They are sore or painful and last for 2 to 3 weeks if untreated.
- Local lymph glands are enlarged and tender
- In women, lesions occur on the external genitalia and the mucosae of the vulva, vagina and cervix.
- Pain and difficulty passing urine are common.
- Flu-like symptoms with fever, headache and muscular aches. Symptoms tend to be more severe in women than in men.

Following the initial infection immunity develops but does not fully protect against recurrence. Recurrences can be triggered by minor trauma, other infections, UV radiation, menstrual cycle (flare-ups may occur before the monthly period), emotional stress. Recurrent infections differ from first infections in that

- blisters are usually smaller in size and more closely grouped
- shorter duration than the initial infection, usually 5-10 days
- Generally the affected person feels quite well.

Itching or burning can precede by an hour or two the development of small, closely grouped blisters on a red base. These then produce shallow ulcers, on the glans or shaft of the penis in men and on the labia, vagina or cervix in women.

Aetiology

Herpes simplex is one of the commonest infections of mankind throughout the world. There are two main types of herpes simplex virus (HSV); type 1, which is mainly associated with facial infections and type 2, which is mainly genital, although there is considerable overlap.

Both type 1 and type 2 herpes simplex viruses reside in a latent state in the nerves that supply sensation to the skin. With each episode of herpes simplex, the virus grows down the nerves and out into the skin or mucous membranes where it multiplies, causing the clinical lesion. After each episode it "dies back" up the nerve fibre and enters the resting state again.

Pathogenesis

- Sexual contact, including oro-genital contact, is the most common way to transmit genital HSV infection. The virus can be shed in saliva and genital secretions from individuals, even if they have no symptoms, especially in the days and weeks following a clinical episode.
- Vertical transmission or auto inoculation may also occur.
- HSV dies quickly with drying at room temperature; spread from objects like bath towels (fomites) is unusual.

Management

Antiviral drugs are indicated for primary herpes simplex infection, as symptoms may last for 3 weeks if no treatment is given. Patients with significant recurrences may require repeated courses or continuous prophylactic therapy for 2 months or more. Mild uncomplicated recurrences of herpes simplex usually require no treatment.

Available antiviral drugs include:

- Acyclovir
- Valacyclovir
- Famciclovir

6. What are the clinical features seen in genital warts? Outline the aetiology, pathogenesis and management of genital warts.

Clinical features

Genital warts may occur in the following sites:

- Vulva
- Vagina
- Cervix
- Urethra
- Penis
- Scrotum
- Anus
-

Aetiology

Genital warts are caused by the human papillomavirus (HPV).

- There are at least 100 different types of HPV; at least 40 can infect the genital area.
- The HPV types that cause external visible warts (HPV Types 6 and 11) rarely cause cancer. Other HPV types (most often Types 16, 18, 31, 33 and 35) are less common in visible warts but are strongly associated with penile and vulvar intra-epithelial neoplasia.

Pathogenesis

Visible genital warts and subclinical HPV infection nearly always arise from direct skin to skin contact:

- Sexual contact. This is the most common way amongst adults.
- Oral sex
- Vertical transmission.
- Auto inoculation from one site to another.
- Controversy surrounds whether warts can be spread via fomites

Transmission is common as genital warts often go unnoticed. Subclinical infections can also be infectious.

Often, warts will appear three to six months after infection but latency periods of many months or even years have been reported. Developing genital warts during a long-term relationship does not necessarily imply infidelity.

The risk of HPV transmission is extremely low if no warts recur a year after successful treatment.

Condoms provide a physical barrier and lower the risk of passing on HPV. They do not, however, prevent all genital skin-to-skin contact.

Use a condom to protect against other STIs, particularly with new sexual partners

Management

The underlying viral infection may or may not persist if the visible warts clear.

If left untreated, warts may resolve, remain unchanged, or increase in size or number.

No one treatment is ideal for everyone.

Options include:

- No treatment at all.
- Podophyllotoxin solution or resin
- Imiquimod cream
- Cryotherapy
- Trichloroacetic acid (TCA)
- Diathermy
- Curettage
- Laser ablation
- 5% fluorouracil cream