UNIT NO. 7

A PRACTICAL APPROACH TO GENITAL GROWTHS AND RASHES

Dr Martin TW Chio

ABSTRACT

Genital rashes and growths are not uncommon and sometimes uncomfortable reasons for seeking medical attention. It is important to make the correct diagnosis after a tactful history and a meticulous examination. The diagnosis is usually clinical; near-patient investigations may be required to confirm it but may not be easily available or convenient. Patients often fear they may have been infected with a sexually transmitted infection (which should be excluded) or even a malignancy which often heightens their anxiety. Physicians should be familiar with normal and variants of anatomy and the genital specific symptoms and signs of common conditions and their respective management aspects.

This article forms part of the study notes & course material for the Family Practice Skills Course on Sexual Health. Due to copyright & consent restrictions, clinical photographs will only be shown during the powerpoint presentation.

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dermatology, genital rash, genital growth, investigations, genital itch

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INTRODUCTION

A rash or growth in the genital region may present late due to embarrassment. It invariably causes a lot of concern and anxiety with sensitive symptomatic and psychological issues especially if it is wrongly attributed to a sexually transmitted cause. As the genital region may not be fully examined during a routine consultation, the diagnosis of any pathology may potentially be further delayed. Pain syndromes and dysaesthesias will not be covered here.

CLINICAL HISTORY

The history should be elicited with a non-judgemental tone of voice through tactful questioning and rapport building to alleviate any potential anxiety. Salient points of clinical history & presentation of growth or rash to be noted are described below.

Rash

- Location, area, surface, colour
- Distribution: bilateral, symmetrical, flexural
- Itch, changes in morphology, chronicity: new or recurrent

Growths

- Location, number of lesions: single/multiple, change in size/colour
- Associated bleeding, pain or discharge
- Patient's perception of rash; triggering or relieving factors
- Previous treatment(s) and response; current treatment
- Sexual activity/history and STI risk assessment if needed; previous STIs if any
- QOL issues: how the condition affects sexual function: erection, lubrication, libido, ejaculation, orgasm

Other history

- Past medical history, atopy / allergy (especially contactants) history
- Family history of skin conditions
- General review of systems e.g. loss of weight

EXAMINATION

The physical examination should take into consideration the privacy of the patient, adequate lighting & exposure of the affected area, having a chaperone/ assistant present and overall to minimise embarrassment to the patient.

Focus on:

- Females: clitoris, labia majora, labia minora, mons pubis, introitus, vaginal walls, cervix
- Males: pubic hair/region, penile shaft, foreskin (retract), glans, corona, frenulum, scrotum
- Female & male: perineum, peri-anal, anal canal
- Number, surface, scaling, demarcation, satellite lesions, distribution and arrangement of skin lesions;
- Pattern recognition; categories of rash
- Use of Wood's lamp / 5% acetic acid
- Examine extra-genital sites: scalp, oral mucosa, nails, general skin

INVESTIGATIONS

The majority of diagnoses in genital dermatology are usually clinical. Investigations, if they are to be done, may include:

- Scrapes – candida, tinea, scabies, pubic lice
- Smears – molluscum, herpes simplex virus
- Cultures – bacterial
- PCR
- Cervical cytology
- Skin biopsy for histology / stains / cultures / PCR
- Opportunistic screening for STIs: syphilis, Hepatitis B & C, HIV

Skin biopsy

Performing a genital skin biopsy is similar to a skin biopsy on other parts of the body. The main issue is the patient's apprehension about potential pain or discomfort:

- Inform of the necessity of doing a biopsy for histopathology to

MARTIN TW CHIO,
Consultant, National Skin Centre

confirm diagnosis
- Reassure the patient that pain is minimal and can be controlled
- Use the smallest needle (30G ideal) available and inject buffered local anaesthetic slowly
- Allow time for LA to take effect before using a the appropriate-sized punch biopsy (4mm)
- Suture the site; absorbable sutures ideal as they are more comfortable
- Electrocautery may be used if a shave biopsy is performed

NORMAL VARIANTS

It is not uncommon for patients to be more aware of lesions which may have been present for many years after an at-risk sexual exposure. They may pay closer attention & focus on the lesions, some to the point of obsession. It is important to recognise normal variants to reassure them that the lesions are benign but may increase in number. Treatment is not usually required. Common conditions include:
- Females: vulvar papillae, pigmentation of mucosa
- Males: pearly penile papules (corona), Tyson glands (peri-frenulum)
- Females & males: Fordyce's spots (on modified mucous membranes), angiokeratoma (on non-glabrous skin), comedones, epidermoid cysts

COMMON CAUSES OF ITCH IN THE GENITAL AREA

Itch may occur in the absence of diagnostic skin lesions. It is usually not confined to the genital area; if it is so it should not be labelled as psychogenic until possible causes have been excluded. The intensity of how itch is perceived may be a consequence of the cortical sensory representation for the region heightened by underlying anxiety.

Some of the common causes of itch include:
- Inflammatory dermatoses:
  - Seborrhoeic dermatitis, contact (irritant or allergic) dermatitis, lichen simplex chronicus, psoriasis, lichen planus, lichen sclerosus
- Infections:
  - Candidiasis, folliculitis, pediculosis pubis, scabies, genital warts
- Neoplasias:
  - Vulval/penile intraepithelial neoplasia, extramammary Paget's disease
- Systemic diseases:
  - Diabetes mellitus, hypothyroidism, hepatic/renal failure, haematological dyscrasias

GENITAL DERMATOLOGY – A MORPHOLOGIC APPROACH

A useful & practical way to approach any genital dermatology is by the morphologic classification:
- Inflammatory rash (red/pink patches/plaques): may be inflammatory or infectious
- Pigmentary lesions (hyper/hypo/depigmented)
- Ulcerating or blistering lesions (vesicles/erosions)
- Growths (skin coloured/brown/black; patch, plaque, papule, nodule +/- ulcerated)

Some conditions may however be a combination of some or all of the above with varied morphologies.

Red/Pink lesions

These lesions are mainly inflammatory lesions (with the exception of vascular lesions) and may be pruritic. Although scaling is usually a feature, it may be absent on mucosal surfaces & flexures. The commonly seen conditions are:
- Dermatitis / eczema:
  - Atopic / endogenous eczema
  - Contact dermatitis – irritant and/or allergic
  - Seborrhoeic dermatitis
- Lichen simplex chronicus (especially scrotum)
- Folliculitis
- Psoriasiform rash – flexural psoriasis, syphilis
- Lichen planus (purplish)
- Plasma cell vulvitis/balanitis (mucosal)

In the local climate, these conditions may be aggravated by heat, sweat & humidity. Patients may also report symptoms occurring more in the evenings & night as compared with during the daytime; it may be severe enough to compromise sleep. Patients with atopic dermatitis, psoriasis & lichen planus may have lesions elsewhere on the body, therefore a general skin examination is useful to make the diagnosis. A contact dermatitis of an irritant aetiology is more frequently encountered than an allergic cause. Common irritants include harsh soaps, undiluted antiseptics, alcohol & feminine hygiene products. Management includes avoidance of irritants, the use of a gentle non-soap wash, adequate moisturiser & topical low to mid-potency corticosteroids. High-potency corticosteroids may be used at the onset but should be reduced to avoid potential side-effects when the condition improves. For those with corticosteroid phobia a calcineurin inhibitor may be considered; vitamin D analogues can be used for flexural psoriasis.

Inflammatory (infective cause)

Infective aetiologies form the next group of commonly seen conditions. The morphology can range from erythematous papule & pustules to thin patches or plaques. It is also possible to have more than one organism cultured from a site. Treatment is with appropriate topical/oral anti-fungals, oral antibiotics & acyclovir. The conditions can be divided into:
- Fungal infections: (pustules or scaly patches)
  - Candidiasis (especially in diabetics)
  - Tinea cruris (obesity)
- Bacterial infections:
  - S aureus, Streptococcal infection, Corynebacterium
- Viral infections (vesicular; may have associated pain)
  - Herpes simplex
  - Herpes zoster (dermatomal)

Pigmentary lesions

The intensity and colour of pigmentary lesions is highly dependent on background racial pigmentation:

Pigmented lesions: (brown/black)

- Benign genital melanosis
- Lentigines
- Melanocytic naevi
- Seborrhoeic keratosis (flat)
- Post-inflammatory hyperpigmentation
- Acanthosis nigricans

Hypopigmented/depigmented lesions:

- Vitiligo (hypo-/depigmented)
- Genital lichen sclerosus (hypopigmented with thickening)
- Mucosal lichen planus (lacy / reticulate)

Ulcerative / vesicular lesions

These may present as acute, persistent or recurrent lesions:

- Herpes simplex , herpes zoster
- Adverse drug reaction: mucosal Steven's Johnson syndrome, fixed drug eruption (a detailed drug/supplement/traditional medicine history clinches the diagnosis)
- Erosive lichen planus, lichen sclerosus
- Genital aphthous ulcers
- Behçet's disease (with oral ulcers)
- Pemphigus vulgaris, bullous pemphigoid, linear IgA disease, Hailey-Hailey disease

Growths / proliferations

These growths may range is size, number & colour:

Benign

- Skin tags, angiokeratoma, lymphangioma, skin adnexal growths e.g. syringoma, sebaceous cyst
- Genital wart, molluscum contagiosum

Lesions which have been treated with various modalities & yet persistent should trigger a clinical suspicious of:

Pre-malignant / neoplastic

- Vulvar intraepithelial neoplasia (VIN); penile intraepithelial neoplasia (PIN), bowenoid papulosis
- Bowen's disease, squamous cell carcinoma
- Giant condylomata accuminata (Buschke-Lowenstein tumour)
- Extramammary Paget's disease
- Kaposi's sarcoma (HIV-related in MSM)
- Basal cell carcinoma, malignant melanoma (both rare)

Important conditions not to miss

- Cutaneous adverse drug reactions
- Necrotising fasciitis (pain, tenderness)
- Pre-malignant/malignant tumours

MANAGEMENT

The various options for treatment, singly or in combination, are:

- Conservative monitoring
- Topical creams
- Cryotherapy
- Intralesional injections
- Oral medications
- Electrosurgery
- Excision
- Circumcision

Situations to refer for a specialist opinion

- Diagnostic uncertainty
- Persistence of rash for many months and unresponsive to treatment
- Rapid proliferation of rash / growth
- Recurrent ulceration or blistering
- Complicated condition with multiple sites affected
- Suspicion of pre-/malignancy which will require biopsy confirmation

CONCLUSION

Patients with a genital rash or growth may, due to a psychological barrier as a result of embarrassment, present late or may not volunteer symptoms. When an accurate diagnosis is made, most of the genital skin growths and rashes are usually responsive to therapy. The common conditions are inflammatory in nature, cutaneous infections and benign growths. It is prudent to exclude an STI and also offer opportunistic STI screening if the patient has had an at-risk exposure. Physicians should consider revising the diagnosis if the condition is not responsive to treatment and consider referral if they suspect malignancy.

REFERENCES

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2. Sexually transmitted infections management guidelines 2013; published by DSC clinic, Singapore

LEARNING POINTS

- **The diagnosis of any genital growth and genital rash should be made after a detailed history and thorough examination**
- **The anxiety of the patient should be allayed; sexually transmitted infections should be excluded**
- **The most common skin conditions are inflammatory and infectious in nature and benign growths**
- **It is important to exclude a pre-malignancy / malignancy if it is persistent and not responsive to therapy**
- **Investigations may be necessary to confirm a diagnosis especially if the rash or growth has been modified by therapy**