Managing vulval symptoms

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Vulval symptoms are a common presentation to general practice, the two predominant symptoms experienced being itch and pain.

The vulva is part of the skin and thus can demonstrate signs and symptoms of many common skin diseases, both infectious and noninfectious. However being in the genital area, any vulval symptoms, particularly in patients who are sexually active, may lead to additional anxiety of the possibility of a sexually transmissible infection (STI). This concern may impact on the comfort of the patient in giving her doctor a full description of her symptoms and her recent medical and sexual history. It can also be expressed as the patient's desire to ensure that the skin is 'clean', and additional symptoms can then be caused by over-washing and the application of topical antiseptic agents to the vulval skin.

This article discusses the common infectious and noninfectious vulval skin conditions. It does not cover the vulval pain syndromes vulvodynia or vulval dysaesthesia, but useful information on these syndromes can be found on the Australian and New Zealand Vulvovaginal Society's website (www.anzvs.org).

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Common noninfectious and infectious causes of vulval symptoms are listed in Table 1, and discussed below. Overall, the five most common causes of vulval itching are:

- dermatitis (responsible for about 20 to 50% of cases)
- lichen sclerosus (10% of cases)
- vulval intraepithelial neoplasia (VIN; 15% of cases)
- chronic recurrent *Candida* infection (10 to 15% of cases)
- psoriasis (5% of cases).

The key to successful management of vulval skin conditions is to take a careful history and examination (see the box on page 64).

Noninfectious causes

Dermatitis

Many women with vulval dermatitis have a background of atopy. At least one quarter will have positive patch tests for common skin allergens such as soaps, preservatives in creams and gels, fragrances and constituents of topical medications (Table 2).

Vulval dermatitis is almost invariably itchy, and clinical examination of the skin will show erythema, scaling, fissuring and, in cases of chronic scratching, lichenification of the skin. Dermatitis often has a symmetrical pattern of distribution on the skin and the vagina is spared.

Management includes identification of potential allergens and irritants and adherence to vulval skin care, as noted in Table 3. One simple option is to ask the woman to cease application of any topical agents to the skin for two weeks and then review the skin appearance, as many self-applied agents are allergenic and increase irritation.

The mainstays of therapy for vulval dermatitis are soap avoidance, use of bland moisturisers and emollients to reduce fissuring and use of topical corticosteroid ointments, which need to be used until

Table 1. Common causes of vulval symptoms

Noninfectious

- Aphthous ulcers
- Atrophic postmenopausal changes
- Chemical irritants
- Dermatitis
  - allergic contact
  - atopic
  - corticosteroid-induced
  - irritant contact
  - seborrhoeic
- Fixed drug eruption
- Foreign body
- Lichen planus
- Lichen sclerosus
- Lichen simplex
- Pigmentation – benign genital melanosis is common, melanoma of the vulva is rare
- Psoriasis

Infectious

- Bacterial vaginosis
- Candidiasis – 90% due to *Candida albicans* infection; *Candida glabrata* infection is the next most common yeast infection
- Herpes simplex types 1 and 2 infection
- Human papillomavirus infection
- Molluscum contagiosum
- Pubic lice
- Scabies
- Staphylococcal infection
- Streptococcal infection
- Trichomoniasis

continued

Stepwise approach to the assessment of vulval symptoms

General history

- Which symptom bothers the patient most – for example, itching, pain, burning, soreness, discharge, dysuria, dyspareunia or discomfort using tampons?
- How long has the patient had the symptoms? Is this an acute or recurrent episode or have the symptoms been continuous?
- Exactly where on the vulva are the symptoms? Use a drawing to aid location.
- What is the pattern of the symptoms? Are they related to the menstrual cycle or sexual activity?
- What previous investigations has the patient undergone? Has 'thrush' been confirmed by culture?
- Has the patient self-medicated her symptoms?
- Is there a past history of dermatitis, atopy, asthma, eczema, hay fever or mouth ulcers?
- Consider the patient's general medical history. Does she have diabetes, anaemia, thyroid disease, autoimmune diseases or a family history of the same, and what is her immune status?
- Is she taking any prescribed medications?
- Does she have known medication allergies?

Gynaecological history

- Take a history of the patient's menstrual cycle and symptoms
- Take a cervical screening history
- Is there a past history of sexually transmissible infections?
- Is contraception, including condoms and lubricants, being used?
- Does the patient use tampons or panty liners?
- Does the patient wear pantyhose or constrictive, nonbreathable clothing?
- What does the patient use for vaginal washing or douching – for example, soaps, shampoos, bath oils or body washes – and does she use talcum powder?
- Does she have a history of urinary incontinence?
- Does she have a history of faecal incontinence?

Sexual history

- Do the patient's symptoms impair sexual function?
- Are symptoms worse after sexual activity?
- Is there any irritation from the use of condoms or lubricants?

Clinical examination and sample collection

- Inspect carefully all the vulval, perineal and perianal skin.
- Look for changes in skin colour, texture, fissures, skin splits, scaling, loss of normal anatomy.
- Look for any discharge.
- Look for skin lesions; a magnifying loop can be helpful to inspect specific lesions.
- Check skin pigmentation.
- Take swabs for culture to exclude yeast infection of the vulva and vagina.
- Take swabs from skin splits or ulcers to exclude genital herpes by HSV PCR.
- Take STI swabs if the patient is sexually active. *Chlamydia trachomatis* infection, gonorrhoea and trichomoniasis can be tested for by PCR using vaginal swabs or first catch urine samples.
- Biopsy areas of suspicious pigmentation. Most areas of vulval pigmentation are benign melanosis, but solitary areas, especially if palpable or irregular in shape or colour, should be biopsied to exclude melanoma or vulval intraepithelial neoplasia (VIN).
- Biopsy any atypical skin changes, including raised areas and persistent plaques (which may be a sign of VIN).
- Biopsy of vulval skin can be obtained using a disposable 3 to 4 mm punch and local anaesthetic injection. Firm pressure will arrest bleeding, and no sutures are needed. Monsel's solution or 35% aluminium chloride will provide haemostasis. Monsel's solution may stain the skin because of its iron content.

the skin texture is normal. If treatment is withdrawn too soon the rash may flare again.

In severe or chronic cases oral corticosteroids may be needed, and the advice of a dermatologist is important to design a plan of management as vulval dermatitis will wax and wane throughout life. Table 4 lists the potencies of some of the topical corticosteroid preparations available in Australia.

It is also important to treat any secondary bacterial or fungal skin infection at the same time. If ulceration or blistering is part of the symptoms, swabs should be taken to exclude genital herpes simplex infection as a cause. Skin biopsy should be taken if ulcers persist and tests are negative for herpes simplex virus infection to exclude lichen planus, lichen sclerosus, pemphigoid, aphthous ulceration and Behcet's disease.

Lichen sclerosus

Lichen sclerosus is the cause of 10% of cases of chronic vulval itch. It is 10 times more common in women than men and can occur at any age. Up to 10% of cases can be diagnosed in prepubertal children, in whom the symptoms and signs may lead to concern about sexual abuse.

Lichen sclerosus is an autoimmune skin condition with an unclear aetiology. It has a pattern of waxing and waning

Table 2. Common vulval allergens and irritants

Allergens

Dyes
Latex condoms
Medications
- antifungal creams
- benzocaine
- chlorhexidine
- neomycin

Nail polish
Perfumes
Preservatives
Semen
Tea-tree oil

Irritants

Douches
Lubricants
Medications
- antifungal creams

Occlusive clothing
Perfumed toilet tissues
Sanitary pads, panty liners
Soap, shampoo, gels, bath oils, bubble bath
Spermicides
Sweat
Vaginal secretions

and if untreated can lead to vulval atrophy and scarring and cause significant sexual dysfunction. It does not involve the vagina. The most common symptom is intense itching. Patients with lichen sclerosus have a lifetime risk of vulval squamous cancer of 2 to 6%.

Examination of the vulva reveals thin white skin, often in a figure of eight pattern, involving the labial areas, introitus, perineum and perianal skin. The atrophic skin can also have fine wrinkling. The skin is friable and will tear easily with pressure. Ecchymoses, purpuric areas and petechial haemorrhages are often seen, as are fissures and ulcers. In longstanding cases there can be atrophy of the labia majora and minora and fusion of the clitoral folds with burying of the clitoris (Figure 1). Shrinkage of the introitus with scarring can also occur, which can cause severe entry dyspareunia and may prevent intercourse because of stenosis around the entrance to the vagina.

Ideally, lichen sclerosus should always be confirmed by skin biopsy. It is best managed with potent topical corticosteroids to induce reduction of skin inflammation and then, after one to two months, with maintenance use of lower potency corticosteroids (Table 4). In resistant cases, topical pimecrolimus may be useful (off-label use).

Because lichen sclerosus is a lifelong condition with a risk of malignant skin change, it is important for affected women to have their vulval skin examined at least six- to twelve-monthly and any unusual skin appearances such as raised or thickened areas of skin or changes in skin pigmentation biopsied. The advice of a dermatologist may again be of great help in developing a plan of management for these women for their vulval skin care.

Lichen planus

Lichen planus of the vulva occurs in up to 5% of women presenting with vulval symptoms. Pain is often a more predominant symptom than itch. Lichen planus involves the vagina with ulceration and hence can be associated with a pronounced vaginal discharge. Occasionally a reticulate pattern can be seen on the vulval skin or vaginal walls, but this is more often seen in the mouth. Patients may have active mouth ulcers at the same time as flares in vulval symptoms.

It is important to test all women with lichen planus for diabetes and other autoimmune diseases. Vulval ulcers should be swabbed to exclude herpes simplex infection. The diagnosis of lichen planus is confirmed by skin biopsy with immunofluorescent staining to exclude immunobullous disorders.

Table 3. Vulval skin care: advice for patients

- Do not overwash or douche
- Use warm not hot water
- Use saline washes to soothe inflamed skin
- Avoid soap – use soap substitutes
- Pat skin dry or use a hairdryer
- Use wet wipes after defaecation
- Avoid perfumed toilet tissue
- Use tampons not panty liners
- Wear cotton underwear
- Use aqueous cream or plain sorbolene cream as a moisturiser or soap substitute. Paraffin-based ointments are useful for very dry areas of skin
- Avoid nylon and lycra clothing
- Avoid feminine hygiene sprays
- Change straight away after swimming in chlorinated water
- Avoid wearing G-strings

It is advisable to refer women with lichen planus to a dermatologist as treatment with topical corticosteroids may not be sufficient and oral corticosteroids may be needed to control symptoms. Vaginal adhesions and stenosis can occur if treatment is not successful.

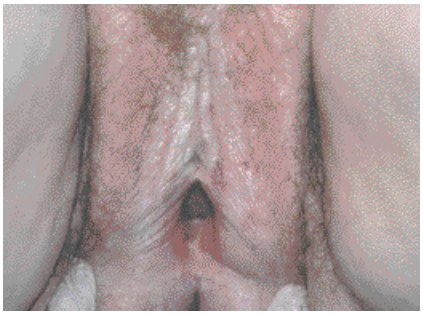


PHOTO COURTESY OF DR GAYLE FISCHER, CASTLE HILL, SYDNEY

Figure 1. Lichen sclerosus. The labia minora have resorbed and the clitoris is buried by adhesions.

Table 4. Potency of some topical corticosteroids available in Australia*

Weak
Hydrocortisone 0.5–1%

Intermediate
Betamethasone valerate 0.02%
Clobetasone butyrate 0.05%
Desonide 0.05%
Triamcinolone acetonide 0.02%

Potent
Betamethasone dipropionate 0.05%
Betamethasone valerate 0.05–0.1%
Methylprednisolone aceponate 0.1%
Mometasone furoate 0.1%

Super potent
Betamethasone dipropionate 0.05% in propylene glycol base
Clobetasol – TGA approval needed to import into Australia

* It is preferable to use ointments as they are more moisturising and do not contain preservatives, which can sting and further irritate the skin. Avoid the use of corticosteroid creams in hairy areas as folliculitis can occur.

Psoriasis

Psoriasis of the vulval skin can occur as part of a more generalised psoriasis, but it may be the only site of symptoms (Figure 2). It should be treated with topical corticosteroids and tar-based skin cleansers.

Vaginal secretions

Irritation of the vulval skin from excess secretions from the vagina can result in excoriation of the vulva. Affected patients may complain of itching, stinging or burning sensations and may have noticed redness and oedema of the skin and perhaps skin fissuring and splitting if they have looked at the area with a mirror. Patients may also complain of dysuria or pain when urine touches the vulval skin when it is inflamed or eroded.

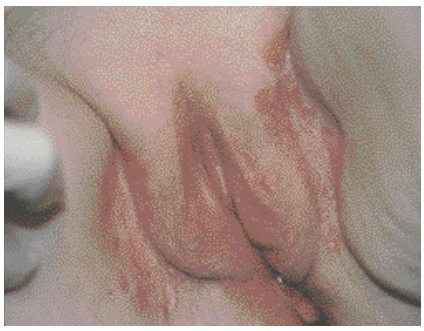
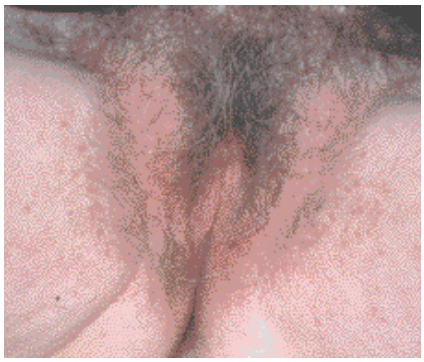


Figure 2. Psoriasis. Well demarcated red plaque without the usual white scale associated with psoriasis elsewhere.



PHOTOS COURTESY OF DR GAYLE FISCHER, CASTLE HILL, SYDNEY

Figure 3. Chronic candidiasis showing classic satellite lesions.

Infectious causes

Candidiasis, bacterial vaginosis and trichomoniasis

Vaginal infections that often cause vulval symptoms are candidiasis (Figure 3), bacterial vaginosis and trichomoniasis. Candidiasis can also directly infect the vulval skin without causing vaginal symptoms.

Recurrent candidiasis, defined as four or more episodes of culture-proven *Candida* infections per year, occurs in about 5% of otherwise healthy women. In women who have recurrent or persistent symptoms it is important to collect cultures from the vagina and any areas of inflamed vulval skin to confirm the presence of the yeast. Infection with non-albicans species of *Candida* that are resistant to topical imidazoles and oral fluconazole needs to be excluded. Non-albicans infections are more responsive to oral antifungal agents such as itraconazole or to boric acid vaginal pessaries.

Women with recurrent episodes of *Candida albicans* infection may need to be treated with longer courses of antifungal agents. Successful resolution of symptoms can usually be achieved with a once-weekly dose of oral fluconazole or itraconazole for six months.

Vulval symptoms can also be caused by discharge from bacterial vaginosis and trichomoniasis, although the latter infection is uncommon in urban Australia. Bacterial vaginosis is diagnosed by a vaginal pH of greater than 4.5 in the absence of semen or blood and the presence of clue cells on a wet preparation of vaginal discharge. It can be treated with oral metronidazole or oral or vaginal clindamycin for one week. In addition, metronidazole gel is now approved for topical vaginal treatment of symptomatic bacterial vaginosis.

Traditionally, trichomoniasis has been diagnosed by observing the motile protozoan *Trichomonas vaginalis* on microscopy of a wet preparation of vaginal fluid. However, in many areas a PCR test using urine or vaginal swab specimens is now used to diagnose this infection. Treatment of patients with trichomoniasis with metronidazole or tinidazole is usually successful. This infection is sexually transmissible so the sexual partner, who is usually asymptomatic, also needs to be treated.

Common STI causes

The other common STIs to cause vulval symptoms are described below.

Human papillomavirus (HPV) infections

HPV infection causes genital warts and the plaque-like lesions of VIN. Atypical lesions should be biopsied to ensure there are no precancerous skin changes. Warts are readily treated with liquid nitrogen cryotherapy, topical imiquimod cream or podophyllotoxin paint or cream.

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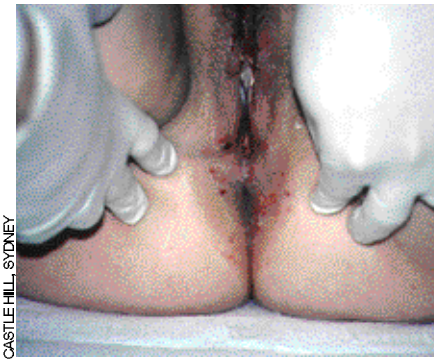

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Figure 4. Genital herpes. Primary attack with multiple blisters.

Herpes simplex virus types 1 and 2 infections

HSV types 1 and 2 infections commonly cause genital ulcers (Figure 4), which are often painful. Recurrent lesions are often atypical and may appear as skin splits or fissures rather than ulcers. Confirmation of the diagnosis is by PCR testing of swabs from the base of a lesion. Treatment with oral antiviral agents may be of use if recurrences are causing concern to the woman. Note that PCR-negative recurrent painful vulval ulcers can also be aphthous ulcers. They occasionally occur associated with other infections, such as infectious mononucleosis, and can occur in patients who have had no previous sexual contact.

Molluscum contagiosum

Molluscum contagiosum is a skin virus that produces round raised lesions often with a visible central umbilicus. The lesions can be itchy. Treatment is with cryotherapy.

Scabies

Scabies causes extremely itchy lesions that may be red in colour and arise where the *Sarcoptes scabiei* mite has burrowed under the skin. Treatment with permethrin or benzyl benzoate skin creams is usually successful, but the itch may persist and patients may require a short course of antihistamines, administered at night.

Pubic lice

Pubic lice (crabs) can be found adherent to pubic hairs and cause intense itching. Treatment with permethrin cream to the hair-bearing areas of the body is usually successful.

Specific patient groups

Prepubertal girls

In prepubertal girls vulval symptoms are often due to the use of soaps and bath gels, but the appearance of an itchy vulva with glazed reddened skin is more likely to be due to staphylococcal or streptococcal skin infection. Candida is rarely seen in the non-oestrogenised genital tract. Vulval symptoms in young girls can also be due to dermatitis, lichen sclerosus or minor genital trauma due to masturbation.

A careful history and examination needs to be taken by the doctor. If there are any concerns that the symptoms may be due to sexual abuse, the advice of a specialist sexual assault doctor may be of help to assist with examination, testing and the approach to discussing concerns with the parents and obligations to notify suspected abuse to child safety authorities.

Postmenopausal women

In postmenopausal women vulval irritation can be due to atrophic skin changes due to lack of oestrogen. It is also important to rule out vulval irritation and skin changes being caused by urinary and faecal incontinence or the need to wear continence pads, which cause friction on the skin.

Summary

The key to successful management of vulval skin conditions in general practice is to take a careful history and examination. An atlas of genital skin conditions is a useful desktop reference. Good skin care is a vital part of management, as is treatment of secondary infections, especially candidiasis. Attention to sexual and psychological factors that can impact on a woman's reaction to her skin problems is also important.

Access to a dermatologist for expert advice is a key to successful treatment plans in complex situations or for patients who have atypical symptoms. Most patients do get better but their symptoms can wax and wane throughout life; early intervention of reactivated symptoms will lead to less discomfort. MT

Further reading

Australian and New Zealand Vulvovaginal Society website: www.anzvs.org (accessed July 2009).

International Society for the Study of Vulvovaginal Disease website: www.issvd.org (accessed July 2009).

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COMPETING INTERESTS: Dr Wray has accepted honoraria for the provision of educational meetings on sexually transmissible infections for GPs from GlaxoSmithKline.