

Pruritus vulvae

Preritus vulvae refers to persistent vulval itching and affects up to 1 in 10 women at some point in their life. Frequently, there is a delay in seeking medical advice, and women often self-medicate with over-the-counter preparations before seeing their GP. These preparations may exacerbate the problem further. As pruritus vulvae has a wide range of causes, a careful history and examination are essential. Management involves both general measures to reduce itching as well as those targeted at the specific cause. This article summarizes the common causes of pruritus vulvae and an approach to assessment and management.

The GP curriculum and pruritus vulvae

The GP **curriculum statement 10.1: Women's health** states that GPs must:

- Demonstrate knowledge of women's health problems, conditions and diseases, including pruritus vulvae
- Communicate sensitively with women about sexuality and intimate issues
- Describe the importance of confidentiality, informed consent and the issues relating to the use of chaperones
- Demonstrate a reasoned approach to the diagnosis of women's symptoms in a manner that is comfortable for both the patient and the GP using history, examination, incremental investigations and refer appropriately
- Intervene urgently with suspected malignancy

The GP **curriculum statement 15.10: Skin problems** states that GPs must:

- Manage primary contact with patients who have a skin problem, with specific mention of itch (pruritus), eczema, psoriasis, lichen planus and lichen sclerosus
- Work with patients to empower them to look after their own health and take responsibility for managing their skin problems
- Coordinate care with other primary care health professionals, dermatologists and other appropriate specialists, leading to effective and appropriate acute and chronic disease management, including prevention and rehabilitation
- Make timely appropriate referrals on behalf of patients to specialist services

Causes of pruritus vulvae

There are a variety of causes of pruritus vulvae, with common causes summarized in Box 1. Regardless of the cause, pruritus vulvae often leads to scratching which perpetuates the itch. This so-called 'itch-scratch' cycle can itself change the appearance of vulval skin.

vulval dermatitis. In addition, the vulval skin can become sensitized to a wide variety of products acting as either irritants or allergens (Box 2). In particular, urinary and faecal incontinence are irritating to vulval skin and may not be disclosed automatically, so ask specifically about this.

Severe vulval itching is the main symptom. On examination, there is swelling and redness of the vulva; the inner thighs and mons pubis may also be inflamed. Scratching exacerbates the problem further, leading to lichen simplex chronicus, with thickening and whitening of the skin, and exaggerated skin markings.

Dermatological conditions

Vulval dermatitis

Vulval dermatitis encompasses atopic dermatitis, contact dermatitis and seborrhoeic dermatitis. Collectively, these are the most common cause of pruritus vulvae. Vulval dermatitis is frequently seen in women with eczema or a history of atopy; iron deficiency is also associated with

Management is aimed at avoidance of potential allergens and irritants and general care of the vulva (Box 3). Topical steroids are helpful in breaking the itch-scratch cycle, and sedating antihistamines at night are useful if nighttime scratching is a problem.

Box 1. Causes of pruritus vulvae

Dermatological conditions

- Vulval dermatitis and lichen simplex chronicus
- Lichen sclerosus
- Lichen planus
- Psoriasis
- Hidradenitis suppurativa
- Behçet's syndrome

Neoplastic causes

- Vulval intraepithelial neoplasia (VIN)
- Vulval cancer

Infections

- Candidiasis
- Trichomoniasis
- Bacterial vaginosis
- Threadworms
- Scabies
- Pubic lice

Hormonal causes

- Atrophic vaginitis
- Breastfeeding

Systemic causes of generalized pruritus

- Iron deficiency
- Renal or hepatic impairment
- Diabetes
- Thyroid dysfunction

Box 2. Allergens and irritants to vulval skin

Allergens

- Cosmetics
- Perfumes
- Medication, e.g. antibacterials, antifungals, local anaesthetics
- Preservatives in topical treatments
- Clothing dyes

Irritants

Physical

- Sanitary towels and panty liners
- Tight clothing
- Synthetic underwear
- Toilet paper
- Shaving

Chemical

- Urine
- Faeces
- Sweat
- Soaps, bubble baths
- Spermicide, lubricants
- Washing powder, fabric conditioners
- Medication
- Disinfectants

Box 3. General advice for patients with pruritus vulvae

- When washing, avoid using water alone or water and soap as these cause drying of the skin which makes it more itchy
- Use an emollient as a soap substitute with water to wash the vulval area once daily. This should be applied by hand. The same emollient can also be used as a moisturizer several times a day
- Showers are preferable to baths
- Avoid using bubble baths, shower gels, deodorants, perfumes, talcum powder, over-the-counter creams, antiseptics and cleansing wipes on the vulval skin
- After washing, dry the vulval area by dabbing gently (not rubbing) with a soft towel or using a hairdryer on a cool setting held away from the skin
- Avoid coloured toilet paper
- Avoid using condoms that are lubricated with spermicide
- If you scratch your skin, avoid wearing nail varnish on your fingernails
- Avoid wearing tight-fitting underwear or other close-fitting clothes, e.g. tights. Wear cotton/silk underwear and avoid wearing underwear made from synthetic fibres
- At night, consider sleeping without underwear
- Wear white or light-coloured underwear as the dyes in dark underwear may cause an allergy
- Wash your underwear using a non-biological washing powder and avoid fabric conditioners

The potency of steroid chosen depends on the severity of symptoms. In milder cases, 1% hydrocortisone can be used for 2–4 weeks and then reviewed. In cases of lichenification or severe itching, potent steroids (e.g. betamethasone valerate 0.1%) may be needed for 1–2 weeks initially to break the itch-scratch cycle. The patient can then be stepped down to moderate steroids once symptoms are controlled. If symptoms persist despite avoidance measures and topical treatment, consider referral to dermatology for patch testing.

Lichen sclerosus

Lichen sclerosus is an inflammatory dermatosis mainly affecting the genital skin. It is thought to have an autoimmune basis, and approximately 30% of women with lichen sclerosus have, or will develop, another autoimmune disease, especially thyroid disease. Lichen sclerosus can affect women of any age, but peaks of incidence are seen in childhood and in postmenopausal women.

The typical symptom is intractable itching, but fissures and erosions may cause soreness. As well as affecting the vulva, lichen sclerosus can extend to involve the perianal skin, giving a figure-of-eight pattern. Affected skin appears white and wrinkled, with areas of telangiectasia and purpura (Fig. 1). Ongoing inflammation results in scarring and loss of normal architecture, giving rise to symptoms of dyspareunia and difficulty with micturition. The clitoris may become buried; there may be fusion and then loss of the labia minora and introital narrowing. Perianal disease can cause constipation.



Figure 1. Vulval lichen sclerosus.
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Treatment is with very potent topical steroids (e.g. clobetasol propionate), which are commonly initiated in primary care based on a clinical diagnosis of lichen sclerosus. There is usually a rapid response to topical steroids. Patients who fail to respond to treatment within 2–3 weeks or those with atypical features should be referred to secondary care for confirmation of the diagnosis, which may involve a vulval biopsy. A small proportion of women do not respond to very potent topical steroids, in which case topical tacrolimus may be started in secondary care.

Lichen sclerosus has a chronic relapsing course, and women often need to use topical steroids for many years. There may be an increased risk of squamous cell carcinoma in areas of lichen sclerosus (Carli *et al.*, 1995), and patients should be made aware of this risk. Thus, women with lichen sclerosus should have an annual review and be advised to report any change in the appearance of the vulval skin in between review visits.

Lichen planus

Lichen planus is an inflammatory skin disorder of unknown cause that can affect any part of the skin, including the vulva. Affected women may complain of vulval soreness or pain in addition to itching. The classical appearance of purple polygonal papules seen on keratinized skin is seen less commonly on the vulva. Instead, vulval lichen planus tends to be erosive with discrete erythematous edges (Fig. 2). Unlike lichen sclerosus, lichen planus can involve genital mucosa, often with a white lacy appearance.

Lichen planus is also thought to be autoimmune in nature, and treatment is with very potent topical steroids to control

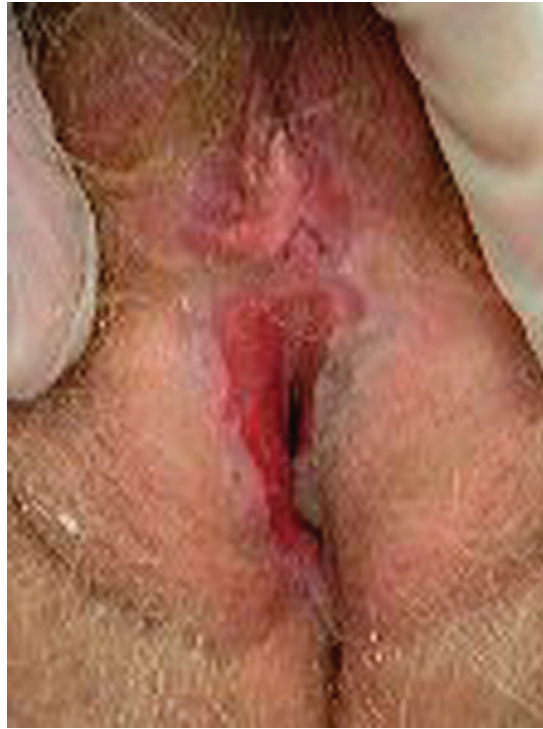


Figure 2. Vulval lichen planus.
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the itching. Patients with vulval lichen planus appear to be at increased risk of developing squamous cell carcinoma (Kennedy *et al.*, 2008), so again, annual review of affected patients is indicated.

Vulval psoriasis

Psoriasis affecting the vulval skin causes well-demarcated red patches, but the scale seen elsewhere on the body is often absent (Fig. 3). It may extend to involve the natal cleft but does not involve the vaginal mucosa. It is more common in patients with psoriasis elsewhere and those with a positive family history. Treatment is as for flexural psoriasis and includes emollients, vitamin D analogues and topical steroids. Coal tar should not be used on the vulva.



Figure 3. Vulval psoriasis.
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Other dermatological causes

Hidradenitis suppurativa is a chronic inflammatory condition of the apocrine sweat glands, affecting the axillary and anogenital regions, including the vulva. It causes deep nodules, which can rupture to form sinus tracts, leads to widespread scarring and may present with pruritus. Treatment is with skin hygiene measures and long-term antibiotics such as doxycycline 100 mg daily for 6 months.

Behçet's syndrome is a multisystem disorder, which causes genital and oral ulceration. Genital ulcers can involve the vulval skin and tend to be painful rather than itchy. Referral for specialist treatment is required.

Neoplastic causes

Vulval intraepithelial neoplasia

VIN describes a premalignant condition that has a risk of progression to squamous cell carcinoma. There are two types of VIN: usual and differentiated.

Usual type VIN tends to affect younger women (aged 35–55 years) and is particularly associated with human papilloma virus (HPV) infection. Consequently, it is more common in women who have had previous abnormal cervical cytology and is associated with intraepithelial neoplasia at other genital sites (e.g. vagina, anal skin). Other risk factors include smoking and immunosuppression. Usual type VIN has a very variable appearance and tends to affect multiple areas of the vulva. Lesions may be white, red or pigmented and warty, nodular or eroded.

Differentiated VIN affects an older age group (55–85 years) and is seen less commonly. It is not HPV related and instead is associated with chronic dermatoses such as lichen sclerosus and lichen planus. It tends to present as a single lesion, usually an ulcer or plaque.

All patients with suspected VIN should be referred to secondary care as a vulval biopsy is required for diagnosis. The gold standard for management is surgical excision. Other management options include laser and topical imiquimod cream (an immune modulator). These may be preferred as vulval anatomy can be preserved. Long-term follow-up with annual surveillance in secondary care is important, especially for those women not treated surgically.

Vulval cancer

Squamous cell carcinoma of the vulva usually presents as a lump or ulcer and in itself is not usually itchy. The National Institute for Health and Clinical Excellence (NICE) guidelines for referral for suspected vulval cancer (2005) are shown in Box 4.

Infection

Candidiasis

Acute vulvovaginal candidiasis is easily recognizable, causing vulval itching, vaginal discharge and dysuria. On examination,

Box 4. Guidelines for suspected vulval cancer

Refer urgently patients:

- with an unexplained vulval lump
- with vulval ulceration associated with bleeding

Vulval pruritus or pain may be due to vulval cancer. NICE recommends that patients with these symptoms are initially treated in primary care, with follow-up until a diagnosis is reached or symptoms settle. If pain or pruritus persists, the patient should be referred to secondary care. The urgency of this referral depends on the nature of the symptoms and the level of concern about cancer.

Source: NICE. Referral guidelines for suspected cancer (2005)

there is swelling and erythema of the vulva and a thick curd-like vaginal discharge. In recurrent or chronic candidiasis, however, vaginal discharge may be absent. There may be secondary sensitization of the vulval skin due to chronic application of topical antifungal creams. On examination, the vulval inflammation may be seen to extend to the thighs and mons pubis, with satellite lesions.

Where chronic vulvovaginal candidiasis is suspected, it is important to confirm the diagnosis with vaginal swabs. Treatment can be with topical or oral antifungals, with the latter having the benefit of avoiding the sensitization seen with topical therapy.

Other infective causes

Bacterial vaginosis tends to present with a fishy smelling profuse vaginal discharge, and while mild vulval irritation may be present, it is not usually the primary symptom.

Trichomoniasis can cause a vulvovaginitis and so may present with vulval itch and discharge. The diagnosis and management of these infections are covered in detail in a previous issue of *Innovait* (Seepana and Allamsetty, 2009).

Patients with infestations of scabies or pediculosis pubis may present with vulval irritation. Threadworms more commonly cause pruritus ani, but vulvovaginitis may also occur.

Hormonal causes

Atrophic vaginitis

In perimenopausal and postmenopausal women, the fall in oestrogen levels causes thinning and dryness of the vulva and vagina, leading to symptoms of vulval itching, dryness and dyspareunia. On examination, the vagina appears pale and dry, and the vulva is atrophic. Treatment is with topical or intravaginal oestrogens, reviewed after 3 months.

Breastfeeding women may present with similar symptoms. In this case, low oestrogen levels are due to the antagonistic effect of raised prolactin.

Systemic causes

Any condition which causes generalized pruritus may cause vulval itching. This includes conditions such as renal or liver impairment, iron deficiency, diabetes and thyroid dysfunction.

Assessment of the woman presenting with pruritus vulvae

History

When seeing patients with vulval itch, a thorough history will be helpful in establishing the likely cause of symptoms. As there is often a delay in presentation, it is important to establish why the woman is presenting now and what her concerns are. Pruritus vulvae can have a major effect on a woman's life, so ask about this specifically, especially with regards to sleep and sexual function. The key points in the history are summarized in Box 5.

Ask about duration of symptoms, any specific triggers and what she has tried already. Ask directly about urinary or faecal incontinence as women may not disclose this. Enquire about any history of skin disease and symptoms at other sites. It is important to take a sexual, gynaecological and medical history. The family history should focus on the presence of autoimmune disease and atopy in family members.

Examination

As for all intimate examinations, you should offer a chaperone and ensure the patient's privacy and dignity. The woman should ideally be examined with a good light source on an examination couch. The vulva should be examined systematically, followed by inspection of the perianal region and natal cleft. Where VIN is suspected or the patient has complained of vaginal discharge, a speculum examination should be done.

Also, examine other skin sites, especially those affected by certain skin diseases, e.g. scalp and extensor surfaces for psoriasis. The oral mucosa should be examined for lichen planus, and the nails should be examined for signs of psoriasis.

Investigations

Often, the cause of pruritus vulvae is apparent after history and examination. Further investigations may be indicated depending on the suspected cause.

If infection is suspected, take swabs. Check a fasting blood glucose if diabetes is suspected. Thyroid function tests should be done in patients with lichen sclerosus, and serum ferritin should be tested in women with vulval dermatitis.

Further investigations may be undertaken in secondary care. Patch testing for patients with contact dermatitis may help identify a specific irritant or allergen and facilitate avoidance measures. A biopsy of vulval skin may be taken if VIN is

Box 5. History in a patient presenting with vulval itch

History of vulval itch

- Duration of symptoms and triggers
- Associated symptoms (vulval soreness, vaginal discharge and symptoms suggestive of sexually transmitted infections)
- Itching at other skin sites
- Urinary or faecal incontinence
- Washing/hygiene practices, e.g. soaps, shower gels, sanitary products, hygiene wipes
- Impact on life (especially mood, sleep and sexual function)

Medical history

- Skin disease, e.g. eczema, psoriasis
- Autoimmune disease, e.g. thyroid disease, pernicious anaemia
- Immunodeficiency
- Systemic illness, e.g. diabetes mellitus increases risk of candidiasis; pruritus can be secondary to iron deficiency, renal and liver failure

Gynaecological history

- Cervical cytology
- Contraception, e.g. barrier methods, spermicides
- Sexual history to assess risk of STIs
- Premenopausal or postmenopausal
- Breastfeeding or pregnancy

Drug history

- Prescribed and over-the-counter medications
- Recent antibiotics
- Topical vulval treatments: antifungal creams, pessaries

Family history

- Autoimmune disease
- Atopy
- Skin disease

Social history

- Smoking

suspected, if the diagnosis is uncertain or where the patient does not respond to treatment.

Management

Management of pruritus vulvae depends on treating the underlying cause. Most patients benefit from general advice regarding care of the vulval skin. Referral to secondary care is indicated for confirmation of the diagnosis in cases of suspected VIN. In other patients, referral should be considered if the underlying diagnosis is unclear or where patients fail to respond to treatment (Box 4).

Patient education and general advice

Patients with pruritus vulvae should be given general advice on simple measures, which can help reduce itching and

avoid secondary sensitization (Box 3). Patient information leaflets which summarize this advice are available from the patient.co.uk website and the British Association of Dermatologists website.

Women should be prescribed an emollient and advised to use this as a soap substitute and moisturizer. Care needs to be taken as some women may develop allergy to the preservatives in some emollients.

Topical steroids

Topical steroids are used to treat a number of vulval conditions, and patients should be given clear instructions on their use, together with written information. Very potent topical steroids (e.g. clobetasol propionate 0.05%) are used for the treatment of lichen sclerosus and lichen planus and should only be applied to the affected areas. A 30 g tube of clobetasol should last 3 months.

Box 6. Patient information on the use of clobetasol propionate 0.05% cream or ointment

You should apply your clobetasol cream/ointment sparingly (this means half to one fingertip) to the affected area(s). These are the areas where you notice itch/discomfort or changes in the skin.

Apply the cream:

- once daily for 1 month
- then on alternate days for 1 month
- then twice a week for 1 month
- then once a week for 1 month
- then gradually reduce this until you can use it occasionally or not at all.

One 30 g tube of clobetasol cream should last at least 3 months. This amount should not cause you to have adverse effects on the treated skin or elsewhere in the body.

If symptoms return after the 4 month course, you can use the clobetasol cream/ointment every night for 2 weeks to treat the flare-up and then try to reduce the frequency, as above.

If symptoms keep coming back quickly when you stop using the cream, you may prefer to use the cream regularly once or twice a week long term. Long-term use is safe as long as one 30 g tube lasts at least 3 months. More than this may cause skin thinning.

It is normal to notice stinging for a few minutes after applying the cream. However, if you notice stinging in the area for more than 1–2 hours after applying the cream, you may have become sensitive to one of the ingredients. There are several alternative creams and you should contact your clinic for advice.

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In order to gain symptom control, topical steroids are used daily to begin with; the frequency of application is then reduced gradually (Box 6). If symptoms flare-up when the frequency is reduced, the patient should be advised to increase application until symptoms are controlled. For patients with ongoing relapses of lichen sclerosus and lichen planus, it is safe to use clobetasol propionate as required. Most patients require 30–60 g every year.

Key points

- Pruritus vulvae is a common presenting symptom in general practice affecting up to 10% of women
- Causes include dermatological conditions, infections, neoplastic conditions and hormonal changes
- A careful and sensitive history and examination are the key to diagnosis
- Most women benefit from general advice about caring for vulval skin
- Long-term use of clobetasol propionate 0.05% for lichen sclerosus and lichen planus is safe provided it is used appropriately

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