

Persistent vulvar itch

A case of pink, symmetrical bilateral plaques on the labia majora, without evidence of atrophy or scarring and with scant white vaginal discharge

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FIGURE 1 Bilateral labia majora show lichenification



On bilateral labia majora, symmetric, pink plaques with accentuated skin markings (lichenification) noted on physical examination. Scant white vaginal discharge was noted on exam but is inconspicuous in photo.

CASE Lingerin vulvar pruritus developed during traveling

A 48-year-old premenopausal Hispanic woman with past medical history of breast cancer presents to a dermatologist with the chief complaint of persistent vulvar pruritus. The vulvar itching began while traveling and has continued for 6 months. Previous treatments have been trialed, including over-the-counter feminine hygiene products, wipes, and hydrocortisone ointment.

Physical examination reveals pink, symmetric, bilateral lichenified plaques on the labia majora, without evidence of atrophy or scarring (FIGURE 1). Scant white vaginal discharge is also noted.

What is the most likely diagnosis?

- Genital lichen simplex chronicus
- Genital atopic dermatitis
- Genital lichen sclerosus

Turn the page to see if you are correct.

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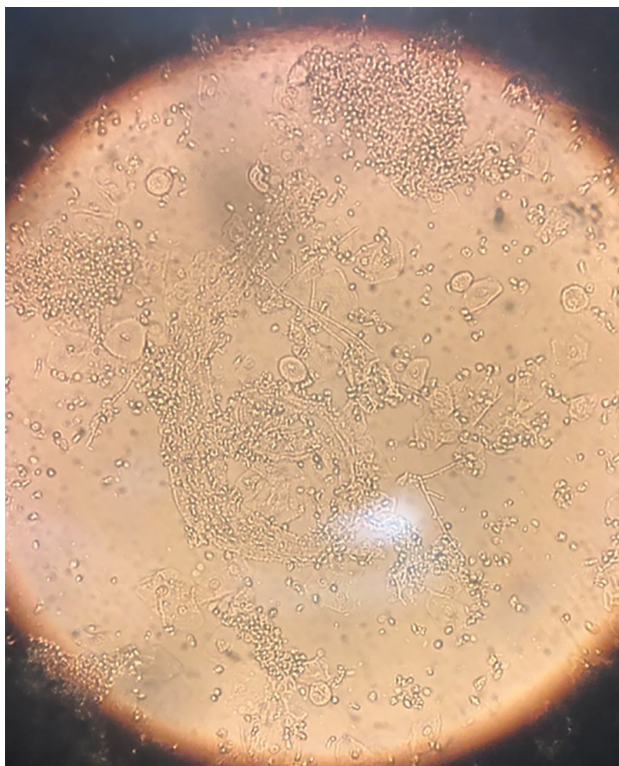
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Genital lichen simplex chronicus

Lichen simplex chronicus (LSC) is an inflammatory skin condition that develops secondary to persistent rubbing or scratching of skin. Although LSC can occur anywhere on the body, genital LSC develops in association with genital itch, with the itch often described as intense and unrelenting. The itching sensation leads to scratching and rubbing of the area, which can provide temporary symptomatic relief.^{1,2} However, this action of rubbing and scratching stimulates local cutaneous nerves, inducing an even more intense itch sensation. This process, identified as the 'itch-scratch cycle,' plays a prominent role in all cases of LSC.¹

On physical examination LSC appears as poorly defined, pink to red plaques with accentuated skin markings on bilateral labia majora. Less commonly, it can present as asymmetrical or unilateral plaques.³ LSC can extend onto labia minora, mons pubis, and medial thighs. However, the vagina is spared.¹ Excoriations, marked by their geometric, angular appearance, often can be appreciated overlying plaques of LSC. Additionally, crusting, scale, broken hairs, hyperpigmentation, and scarring may be seen in LSC.²

FIGURE 2 Wet mount of vaginal discharge, revealing candida hyphae and spores



In this case, white discharge was noted on vaginal examination, which was suspicious for vaginal candidiasis. Wet mount examination revealed multiple candida hyphae and spores (**FIGURE 2**), confirming vaginal candidiasis. This vulvovaginal fungal infection caused persistent vulvar pruritus, with subsequent development of LSC due to prolonged scratching. The patient was treated with both oral fluconazole and topical mometasone ointment, for vaginal candidiasis and vulvar LSC, respectively. Mometasone ointment is categorized as a class II (high potency) topical steroid. However, it is worth noting that mometasone *cream* is categorized as a class IV (medium potency) topical steroid.

Treatment

Successful treatment of LSC requires addressing 4 elements, including recognizing and treating the underlying etiology, restoring barrier function, reducing inflammation, and interrupting the itch-scratch cycle.³

Identifying the underlying etiology. Knowing the etiology of vulvar pruritus is a key step in resolution of the condition because LSC is driven by repetitive rubbing and scratching behaviors in response to the itch. The differential diagnosis for vulvar pruritus is broad. Evaluation and workup should be tailored to suit each unique patient presentation. A review of past medical history and full-body skin examination can identify a contributing inflammatory skin disease, such as atopic dermatitis, psoriasis, lichen planus, lichen sclerosus, or autoimmune vesiculobullous disease (pemphigus).^{1,2} Careful review of products applied in the genital area can reveal an underlying irritant or allergic contact dermatitis. Scented soap or detergent commonly cause vulvar dermatitis.¹ A speculum examination may suggest inflammatory vaginitis or atrophic vaginitis (genitourinary syndrome of menopause); run off of vaginal discharge onto the vulvar skin can result in vulvar pruritus. Vaginal wet mount can diagnose vulvovaginal candidiasis, trichomonas infection, and bacterial vaginitis.¹ A skin scraping with mineral oil or potassium hydroxide can suggest scabies infestation or cutaneous dermatophyte infection, respectively.² Treatment of vulvar pruritus should be initiated based on diagnosis.

Restoring barrier function. The repetitive scratching and rubbing behaviors disrupt the cutaneous barrier layer and lead to stimulation of the local nerves. This creates more itch and further traumatization to the barrier. Barrier function can be restored through soaking the area, with sitz baths or damp towels. Following 20- to

30-minute soaks, a lubricant, such as petroleum jelly, should be applied to the area.³

Reducing inflammation. To reduce inflammation, topical steroids should be applied to areas of LSC.³ In severe cases, high potency topical steroids should be prescribed. Examples of high potency topical steroids include:

- clobetasol propionate 0.05%
- betamethasone dipropionate 0.05%
- halobetasol propionate 0.05%.

Ointment is the choice vehicle because it is both more potent and associated with decreased stinging sensation. High potency steroid ointment should be applied twice daily for at least 2 to 4 weeks. The transition to lower potency topical steroids, such as triamcinolone acetonide 0.1% ointment, can be made as the LSC improves.²

Interrupting the itch-scratch cycle. As noted above, persistent rubbing and scratching generates increased itch sensation. Thus, breaking the itch-scratch cycle is

essential. Nighttime scratching can be improved with hydroxyzine. The effective dosage ranges between 25 and 75 mg and should be titrated up slowly every 5 to 7 days. Sedation is a major adverse effect of hydroxyzine, limiting the treatment of daytime itching. Selective serotonin reuptake inhibitors (SSRIs), such as citalopram, also have been found to be effective. Over the counter, nonsedation antihistamines have not been found to be useful in breaking the itch-scratch cycle. The clinical course of LSC is chronic (as the name implies), waxing and waning, and sometimes can be challenging to treat—some patients require years-long continued follow-up and treatment.³ ●

References

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