Vulvar Lesions:
Peggy's Pruritic Pain

Paul Bessette, MD
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Peggy's Pruritis

- Peggy, 55, presents with vulvar pruritus and pain for the past three months.
- She notices red and white lesions mainly on the right side of her vulva (Figure 1).
- She has consulted two different physicians. The first physician prescribed nystatin cream; the second physician recommended a hydrocortisone cream associated with one pill of fluconazole.
- Peggy decided to consult you because she wants a prescription for yet another cream with greater efficacy for her yeast infection.

Figure 1. Red and white lesions on the right side of the vulva.

To find out how you can help Peggy, read on…

It is not uncommon for a physician to have to resolve a situation that two other physicians previously tried to resolve. Obviously, it would be ill-advised to prescribe Peggy another cream with greater efficacy for her yeast infection, as requested. As with many situations in our profession, having a rational approach is the ideal.

Step 1: Think about the colour

Always describe the colour of the vulvar lesions. In this case, it will help to exclude some of the etiologies listed in Table 1. Therefore, melanosis, nevus and melanoma are not possible in Peggy's case. Even if the lesion is not black or brown, vulvar squamous intraepithelial lesion (VIN) cannot be excluded because it can present as a white, red or brown/black lesion (all colours). As depicted in Figure 1, this lesion presents white and red spots. Therefore, to help Peggy, we must make a differential diagnosis and think about an etiology that can produce these aspects. Tables 2 and 3 list the main causes of white and red lesions, respectively.

Step 2: Use the acronym DIAGNOSIS

To classify and find the etiology of vulvar lesions, the acronym DIAGNOSIS can be used:

- **D**ermatosis
- **I**nfection
- **A** cyst
- **G**rave **N**eoplasm
- **O**thers
- **S**imple benign tumour
- **I**ntraepithelial lesion
- **S**everal condylomas

Table 1

Etiology of black or brown vulvar lesions

- Vulvar melanosis
- Malignant melanoma
- Nevus
- Vulvar intraepithelial lesion

Table 2

Etiology of white vulvar lesions

- Dermatosis (psoriasis, lichen planus, seborrheic dermatitis, neurodermatitis, *etc.*)
- Vitiligo
- Lichen sclerosus
- Squamous hyperplasia
- Squamous carcinoma in situ or invasive
- Paget's disease
- Vulvar intraepithelial lesion
- Condylomas

Dermatosis

Dermatoses are very common. They include such entities as psoriasis, lichen planus (with or without erosion), seborrheic dermatitis and neurodermatitis. One of the most common dermatoses is psoriasis, in which there are small, circular lesions that are lightly raised, red or yellowish-red and papular. Clinical diagnosis is often enough. A biopsy is often aspecific, except for new lesions.

Infection

Some physicians can easily diagnose this problem when a patient is talking about vulvar pruritus; unfortunately, too often without looking at the vulva. Most of the time, the diagnosis is going to be true, but as in Peggy's case, looking at the vulva can give us some clues.

In candidasis, the vulva usually looks uniformly erythematous with some occasional small satellite lesions or scratching lesions. The absolute diagnosis will be done if there is a clinical picture of vulvar and vaginal itching with increased leucorrhea with a vaginal pH acid (< 4.7), direct examination for yeasts and a potassium hydroxide preparation with mycelia.

Treatment consists of eliminating predispositions to vulvar lesions and prescribing an antifungal. If treatment fails, or in cases of frequent recurrence, you must obtain a specimen to check for resistant yeasts. Unfortunately, in Peggy's case, the lesions don't look uniformly erythematous and are localized mainly on the right side of the vulva. The culture would probably be negative.

A cyst

We can exclude a Bartholin or vulvar cyst or abscess because there is no edema associated with the redness. Also, the patient is not reporting a mass or extreme sensitivity at the lower third of the vulva.

Grave Neoplasm

We can probably exclude a malignant lesion because the aspect is usually a raised, irregular lesion that can bleed easily. In these cases, a vulvar biopsy confirms the diagnosis. The treatment is radical vulvectomy (partial or not) or radical excision, with or without inguinofemoral nodes dissection.

Dr. Bessette is an Assistant Professor, Faculty of Medicine, Université de Sherbrooke, Sherbrooke, Quebec.

Others

Lichen sclerosus belongs in this category, and is quite common in post-menopausal patients. The aspect is typically white lesions with the impression of tinning of the skin involving the vulva and anal region (a figure eight or "pan tail"). A clinical diagnostic is sometimes enough, but, if it is done, a biopsy will show a decrease of the thickness of the epithelium and hyperkeratosis.

The treatment is a clobetasol cream, 0.05%, at a decreasing dosage (such as two times a day) until symptoms become less evident (usually two to six weeks) (*i.e.*, reduced to once a day for two to eight weeks, reduced to two times a week for two to eight weeks and, finally, reduced to once a week, or as needed.

Be sure to treat intercurrent candidasis. The etiology is unknown. Irritation, a burning sensation and dyspareunia are common symptoms, but 99% of patients will have pruritus. Sometimes, a fusion of the labials and closure of the vagina may be seen if it is severe. If there is ulceration, thickening or granular aspect, think about cancer and take a biopsy (3% to 5% of the case compared to 1/100,000 in the general population).

Concomitant candidasis is frequent. Since there is no atrophy, prolonged use of corticosteroids on the vulva is not a problem.

Table 3

Etiology of red vulvar lesions

- Vestibulitis
- Eczema
- Dermatophytosis (tinea cruris)
- Vulvar candidiasis
- Genital herpes
- Secondary syphilis
- Paget's disease
- Vulvar intraepithelial lesion

Simple benign tumour

A simple benign tumour is easy to exclude in this case because there is no mass. Usually, the patient is asymptomatic and presents with a lump. The excision with pathologic analysis will give you the final diagnosis.

Intraepithelial lesion

As previously stated, because the lesions are red and white, VIN is not excluded. The histology shows disorganized proliferation of cells associated with abnormal mitosis. The treatment will consist of local excision if it is > 1 cm, isolated and suspicious. Laser is also used for multiple small lesions or if numerous sites are affected (clitoris, vagina or anus).

A superficial vulvectomy with or without a skin graft may also be needed if extended disease is present as it increases the risk of invasive cancer if untreated. An intraepithelial lesion is often multifocal. A biopsy should be done to exclude a neopla-

sia. An extension toward the anus is possible. Always remember that VIN is a possibility.

Several condylomas

Condylomas are like warts that have papillary or cauliflower-like lesions. Looking at the picture, this is probably not the case for Peggy.

Step 3: Take a biopsy or refer the patient for one

A biopsy is mandatory for every vulvar lesion that looks suspicious or that does not respond to treatment.

What's wrong with Peggy?

The performed vulvar biopsy was pathognomonic (Paget cells in the derma). Retrospectively, the description of this condition fits with Peggy—she has eczematous or velvety red lesions with some hyperkeratosis. Most often, it is found on the major labia and can be of all possible dimensions. It can be ulcerated and 50% of patients will have pruritus or itching.

The optimal treatment is excision with clear margins. There is no need to perform inguinofemoral lymphadenectomy if no co-existent adenocarcinoma is present (< 15% of cases). Sometimes, a laser can be used in recurrent cases without neoplasia.

In fact, Paget's disease is a vulvar glandular intraepithelial lesion of the skin. Local recurrence is frequent. Almost all patients are menopausal, Caucasian women. This can be associated with breast or digestive Paget's disease. In these cases, an underlying adenocarcinoma is frequent, which is a chronic disease with some fluctuations of lesions over time, but usually the disease is easy to control.

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Take-home message

- Always describe vulvar lesions starting by their colour.
- Use the acronym DIAGNOSIS to classify and find the etiology of vulvar lesions: Dermatosis, Infection, A cyst, Grave Neoplasm, Others, Simple benign tumour, Intraepithelial lesion or Several condylomas.
- A biopsy is mandatory for every vulvar lesion that looks suspicious.