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Case Report

Vulvar Lichen Simplex Chronicus: From Diagnosis to Treatment

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Abstract

Lichen simplex chronicus (LSC) of the vulva is a chronic pruritic dermatosis with unknown etiology, prone to recurrence and significantly affecting the quality of life of patients. Despite the rather typical clinical picture in the form of lichenized papules and plaques, the diagnosis can be difficult and take a period from several months to several years from the moment of the patient's first visit to a dermatovenerologist or gynecologist. The latter contributes to the chronicity of the pathological process, creates difficulties in treatment, and can lead to sexual and psychoemotional disorders in patients up to suicidal thoughts. In this case, we present a 32-year-old female patient with a diagnosis of vulvar LSC, who was followed up with an erroneous diagnosis of vulvar scleroderma for five years, receiving ineffective treatment, which led to neurotic disorders and sexual dysfunction. After establishing the correct diagnosis and conducting therapy according to the European guidelines for the management of patients with LSC in the anogenital area with additional local application of platelet autoplasma, a stable remission of dermatosis and an improvement in the patient's quality of life were achieved.

Keywords: Lichen Simplex Chronicus; Treatment; Platelet-rich Plasma

Introduction

Lichen simplex chronicus (LSC) of the anogenital area is one of the most common chronic dermatoses of the vulva, accompanied by severe itching, clinically manifested by areas of skin lichenification due to scratching and friction, in which a vicious cycle of scratching and itching is formed [1].

To date, the etiology of the disease is not fully understood. However, primary (or idiopathic) LSC is isolated, which occurs on initially unchanged skin, usually in the presence of atopy. And secondary, which occurs against the background of previous allergic or infectious changes in the skin or other dermatoses of the vulva (psoriasis, lichen sclerosus, lichen planus) [1,2].

The diagnosis, in most cases, is based on clinical data. However, despite the typical objective symptoms in the form of lichenized papules and plaques, there are a number of diseases with which it is necessary to differentiate vulvar LSC, in particular, with allergic vulvovaginitis, lichen sclerosus, psoriasis, lichen planus, and in some cases, histological examination of skin biopsies is required.

According to the European guidelines for the management of vulvar diseases in anogenital LSC, the use of high and medium-strength topical glucocorticosteroids (GCS) is recommended as the first line of therapy, as an alternative - topical calcineurin inhibitors (tacrolimus, pimecrolimus). An important link in treatment is the break in the cycle "itching-scratch". For this purpose, seda-

tive antihistamines, antidepressants or antipsychotics are recommended, the use of which has both advantages and disadvantages. An important role in the treatment and maintenance of remission of LSC belongs to basic care, which in the vulva and vagina area includes gentle cleansing with neutral or acidic pH agents, limiting the use of agents that can increase itching (wet wipes, sanitary and panty liners, rough tissues), use predominantly hypoallergenic agents and necessarily moisturizing the affected area with the use of emollients [3].

Despite the visible progress in recent years, the treatment of vulvar dermatoses remains a challenge. The search for new methods of action in order to reduce the duration and frequency of use of potent topical glucocorticosteroids, to achieve stable remission is urgent. In the works of domestic and foreign researchers, the use of autologous platelet-rich plasma (PRP) is considered [4-8]. PRP is an autologous preparation with a high concentration of platelets in plasma, exceeding the concentration in whole blood by 3-5 times. The introduction of platelet autoplasma can reduce inflammation, increase local immunity, improve microcirculation and metabolism, enhance nutrition and oxygen exchange, which, accordingly, can contribute to the achievement of remission of the disease.

Case Presentation

Patient N., 32-year-old, complained of severe itching in the labia majora, aggravated at night, during exercise and emotional distress, apathy, increased anxiety.

Anamnesis of the disease: considers himself ill for 5 years, when itching first appeared in the area of the skin of the labia majora, more on the right. The patient was consulted by a gynecologist and dermatovenerologist, diagnosed with localized scleroderma. She received repeated courses of systemic drugs: antibiotics of the penicillin series, short courses of prednisolone, vascular, antifibrotic drugs with insignificant therapeutic effect, remission was absent, severe itching persisted. Allergic history is not burdened.

An objective examination on the skin of the labia majora, more on the right, visualized lichenized plaques with clear boundaries, excoriation and hyperpigmentation in the area of rashes (Figure 1).

She was diagnosed with lichen simplex chronicus. To verify the diagnosis, a histological study of a skin biopsy was carried out,

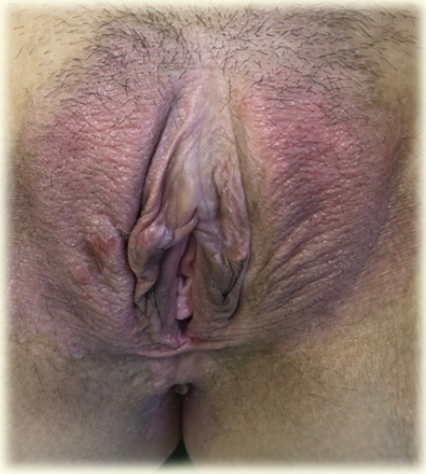

Figure 1: Vulvar lichen simplex chronicus (before treatment).

which showed the presence of epithelial acanthosis and inflammatory infiltration of the superficial dermis, characteristic of LSC

In order to exclude vulvovaginal candidiasis, mycosis of large folds, bacterial infection, microscopic and cultural studies were carried out; determination of the level of IgE, ferritin, patchwork tests to identify contact hypersensitivity.

LSC has a significant effect on the quality of life, and to assess it in this patient, we used the Dermatology Life Quality Index (DLQI) questionnaire, and to assess the intensity of itching, a visual analogue scale (VAS) was used, which helped to track subjective symptoms as a result of treatment.

At the time of treatment, itching in the genital area was assessed by the patient as 9 points out of 10 (VAS), DLQI was assessed at 19 points, which corresponded to the strong influence of the disease on the quality of life. The patient avoided sexual intercourse, after which the itching also intensified, and the episodic unbearable itching that arose led to a state of despair.

As a result of the examination in the culture study was obtained the growth of *Candida albicans* and *Staphylococcus aureus*. According to the guidelines for the management of patients with LSC in the anogenital region, complicated by candidiasis and bacterial infection, at the first stage, a topical combined GCS was prescribed,

which included 0,1% mometasone furoate, gentamicin sulfate and econazole nitrate in the form of a cream 2 times a day for 14 days, then 0,05% clobetasol propionate ointment was prescribed 2 times a day for 14 days.

Against the background of the therapy, the patient was recommended to use pharmaceutical intimate hygiene products: washing products with neutral or acidic pH, moisturizing cream, and also wearing silk underwear.

A follow-up examination after 1 month showed a positive dynamics of objective and subjective symptoms: plaques in the labia majora decreased, infiltration regressed (Figure 2). The patient noted a significant reduction in itching after a week of therapy. After 4 weeks, itching according to VAS was 2 points, DLQI - 4 points.

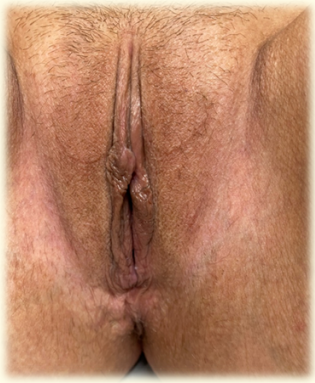

Figure 2: Vulvar lichen simplex chronicus (after 1 month of treatment).

During the next month, 0.05% clobetasol propionate ointment was applied according to an intermeting scheme: 2 times a week, intimate hygiene products 2 times a day. At the follow-up visit 2 months after the start of therapy, there were no complaints of itching (VAS - 0 and DLQI - 1 point). However, post-inflammatory hypopigmentation and slight dryness persisted, which the patient did not like (Figure 3). In this connection, 2 courses of PRP were carried out using a combination of micropapular and microtunnel injection techniques with an interval of 20 days, which led to additional hydration, complete resolution of hypopigmentation and prolongation of remission of dermatosis for a follow-up period of 9 months (Figure 4 and 5).

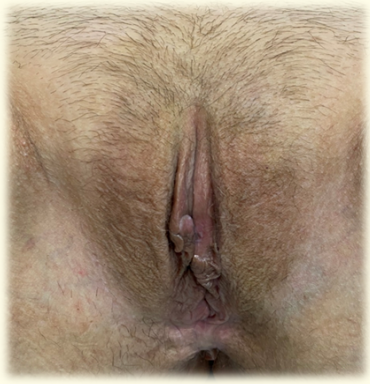

Figure 3: Vulvar lichen simplex chronicus (after 2 month of treatment).

Figure 4: Vulvar lichen simplex chronicus (after 3 month of treatment).

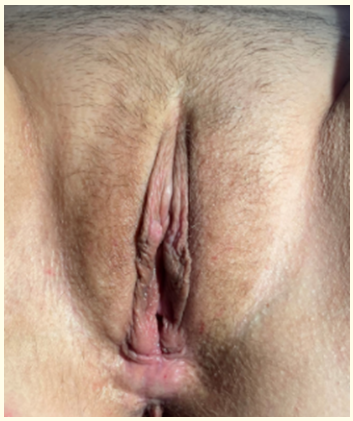

Figure 5: Vulvar lichen simplex chronicus (after 9 month of treatment).

Conclusion

The presented clinical case demonstrates, firstly, the need to revise the clinical diagnosis in the absence of the effectiveness of the therapy and conduct a histological examination. Secondly, it shows high clinical efficacy of standard topical therapy for vulvar LSC, provided that provoking factors (in this case, vulvovaginal candidiasis) are eliminated, moisturized and the principles of basic care of the affected vulvar area are observed. Thirdly, the local application of platelet autoplasma in combination with standard treatment contributed to the prolongation of remission in this patient, which requires further prospective studies.

Conflict of Interest

We have no conflicts of interest to disclose.

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Volume 5 Issue 6 June 2021