



## Discomfort from Lichen Planus in Women

**Lippa Pietro\***, Angelucci Michela, Mancini Vincenzo and Lippa Davide

Department of Dermatology, Dermatotomy and Vulvar Pathology, AIED, Rome, Italy

**\*Corresponding Author:** Lippa Pietro, Department of Dermatology, Dermatotomy and Vulvar Pathology, AIED, Rome, Italy.

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### Abstract

Many inflammatory diseases, of the skin and mucosa cause psychological and social discomfort in sick patients. These diseases can affect the perineal area and the mouth, the nasal mucosa and the conjunctive, these areas can be affected simultaneously or separately.

These observation constitute an interesting chapter of interdisciplinary medicine that interest dermatologist, gynecologist, dentist, urologists and pathologists. These inflammatory diseases require a team of specialists with experience in the pathology of mucosa, especially in the female and male perineal areas.

Lichen Planus causes severe inflammation in the female vulvar and perineal area with considerable discomfort. Target: to know the lichen planus its important for diagnosis and therapy. Its important to follow the woman, the man, the couple during the course of the disease.

**Keywords:** Lichen Planus; Dentist; Gynecologist

Lichen Ruber Planus (LP) is a inflammatory (often chronic) dermatosis which affects, in particular, oral and vulvo-vaginal mucosa and male genital areas (Figure 1a). This disease cause different and simultaneous manifestation in the involved areas. Vulvo-vaginal localization, (Figure 1b) is frequently associated with simultaneous cutaneous lesions and lesions of the oral mucosa (Figure 2). Currently, in literature, there is not 111 concurring data concerning pathology incidence. We can estimate the incidence to range between 0.5% and 5% of patients reporting it at specialized centers of vulvar pathology.

Etiopathogenesis is uncertain. Probably, it is autoimmune. The lymphoid cells, CD8, become responsible for a cell mediated immunologic reaction on the basal layer of the epidermis and consequent death, due to apoptosis, of the keratinocytes.

There is a tight correlation between chronic hepatitis C and Lichen Ruber Planus, particularly within the erosive variant of the

mucosa. The altered hepatocytes may produce or mime a number of basal membrane antigens, inducing the cytotoxic response of the T lymphocytes against the basement membrane.

Genetic factors are also fundamental, as demonstrated by their frequent association with HLA DR1 and HLA DQ1, which are antigens involved in the immune response. Local factors such as heat and scratching are involved as well. Recent studies have detected the presence of biochemical modifications within the affected tissues upon which an increased, genetically controlled production of cytokines (IFN $\gamma$  in lichen oral planus and TNF $\alpha$  in the cutaneous form) is observable.

Several authors attribute the origin or endurance of the pathology to psychoemotional factors. Certainly, the vulvar localization of the erosive variant involves a substantial somatopsychological rebound. In fact, the main vulvar symptoms reported include burning, dyspareunia and, rarely, itching.



Figure 1



Figure 2



Figure 3

### Clinical characteristics

The cutaneous elementary lesion consists of hard, bright, reddish or lilac slate flat papules with polygonal edges that tend to converge as plaques or streaks.

Among dark-skinned patients, the dark-purple or slate gray papules, quickly become covered with scales, which tend to expand. Because of the itching, they retain a polygonal shape with a flat, shiny surface. The itching is intense; some patients are so distressed that they use horsehair gloves or vegetal sponges to find relief, leading to the commonly generalized phenomenon of Koebner and thick lichenification. The consequent pigmentation can persist for several years, leading to a “leopard skin” aspect (Figure 3).

It is important to remember that among dark-skinned subjects, a number of variants of the classical form are common. In particular, the lesions are much more intensively pigmented, almost black, because of the higher level of melanin present within the epidermis. Round lesions (anular lesions) are frequent and the plaques are often hypertrophic and thickened. Compared to white people, erosive-ulcerative forms of the foot are more frequent while oral lesions are not as common.



Figure 4

### Vulvar elementary lesions

This lesion is characterized by off-white leucokeratotic papules that are separately located or that tend to form a “fern-leaf” shape or a “fisherman’s net” (Wickham’s reticule).

This morphological picture can be easily found within the oral cavity, particularly on the gingival mucosa.

### Clinical-morphologic variants of vulvar lesions

#### Papular cutaneous form

This disease is generally localized on the vulvar skin. The main symptom is itching, though asymptomatic cases are not rare.

It is a benign form that tends to heal spontaneously, leaving some hyper-pigmented areas. Usually, there is neither atrophy nor structural changes of the anatomic vulvar prominences.

#### Papular-reticular mucosal lesion

This is the most common form of the vulvar lesion, characterized by the appearance of small off-white hyperkeratotic papules that tend to converge, forming a reticule or small plaques (Figure 4).



Figure 5

#### Hyperplastic lichen planus

Extended leukokeratotic elementary lesions tend to converge and form a leukoplakic plaque with an off-white, wrinkly surface, which overlaps to a generally painful mucosal layer.

In these cases, diagnosis is complicated because is difficult to distinguish between Lichen Sclerosus, Squamous Cell Hyperplasia and Carcinoma In Situ.

#### Erosive lichen planus

- This is characterized by an erythematous-erosive or pseudo erosive layer of the vestibular mucosa (Figure 5) with possible affection of the vagina and association with analogous lesions of the oral cavity. The symptomatology is generally painful; vulvar burning can be spontaneous or caused by contact.

- Intense dyspareunia, spotting or microhemorrhages after sexual intercourse often occur.
- When touched with a cotton swab, the pain resumes, leading to a discharge of seroematic exudate.
- In these forms, the clinical diagnosis is possible only finding a thin, off-white, reticular picture or a leukoplakic tissue at the edges of the lesion.
- Within the erosive Lichen Planus, the lesions can extend to the vaginal mucosa. In these cases, the clinical picture shows “desquamative” vaginitis. In other cases, its aspect is erythematous with abundant yellowish and/or greenish leucorrhea.
- The evolution of the vaginitis is chronic with periods of flare. During the regression, vaginal mucosa appears atrophic and fragile (Figure 6). The patient reports vaginal pain, severe dyspareunia, spotting at times or spontaneous hemorrhage caused by sexual intercourse. Clinical tests are difficult to perform because they cause intensive pain. The most frequent complication is the development of vaginal synechiae that tend to disallow the clinical testing. They are found 1-2 cm from the vestibule or at the fornix. The growth of synechiae is unpredictable; usually, they arise after months or after years from the development of the disease. Other times, it is possible to observe an anular stenosis of the third superior part of the vagina.
- Erosive Lichen Planus is included within a clinical picture called Vulvo-Vaginal-Gingival Syndrome.
- An erosive inflammatory gingivitis with typical off-white hyperkeratotic halo, rarely bollous, is associated with the vulvo-vaginal (described above) clinical picture (Figure 7).



Figure 6



Figure 7



Figure 9

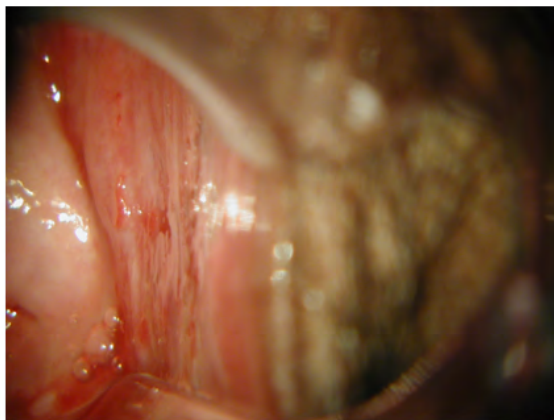


Figure 8

#### Late or extended lichen planus (Figure 8)

The atrophy and stenosis dominate the clinical picture. Mucosa of the labia majora and minora appears pale and thinned; the orificial region is edematous and the anatomic prominences (labia minora and clitoris) look smaller or conglomerated. It is possible to find orificial stenosis due to the presence of anterior and posterior adhesions between the inner facets of the labia minora. The vestibule and the vagina present the same clinical pictures of the erosive form.

#### Diagnosis and differential diagnosis

A correct diagnosis is based on:

- Research of the typical papular and reticular cutaneous lesions within the vulvar region;
- Research of the oral cavity involvement and its presence of off-white, “fern-leaf” shaped lesions on the buccal mucosa of the cheeks, and leucokeratotic lesions of the tongue, the lips, or an erosive gingivitis;
- Research of cutaneous lesions (purple and pruriginous papules) on the anterior face of the wrists, within the sacral region, in the armpits or pubic hair or rarely on the scalp, where it assumes the aspect of a scarring alopecia.

Furthermore, Lichen Planus typically tends to reproduce on the lesions, because of the itching (Koebner phenomenon).

However, a bioptic sample is sometimes necessary; it must be performed on the borders of the vulvar erythematous-erosive area, the off-white edge or on the “reticule”. On the affected area, the picture is non-specific and can show characteristics of chronic inflammation.

The differential diagnosis is essentially related to Erythematous Lichen Sclerosus (Figure 9,10).



Figure 10

### Conclusions

- Lichen planus produces numerous clinical manifestations so it is important to have knowledge of this disease.
- Skin manifestations are easily diagnosed by the dermatologist but clinical manifestations in mucosae areas become more difficult to diagnose its different morphological expression the vulvar region: atrophic, erosive, papular reticular
- A thorough knowledge and experience of Lichen is required however, its therapeutic management remains challenging ever for the specialist in this disease.

Therefore, two typical symptoms are evident in the vulvar region.

- High discomfort (ache-burning).
- Resistance to therapy.

The purpose of this publication is to raise awareness of the complexity of a still unknown and underestimated disease.

The health of women and couples needs specialists able to take care of these patients with precarious physical and psychological conditions, due to high-grade somatopsychic rebound that they have [1-9].

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