



## Gingivovaginal Lichen Planus –A Rare Case Presentation

Authors

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### Abstract

*Lichen Planus is a multisystem disorder and can present to a variety of specialities - dermatologists, general practitioners and gynaecologists. It can be rapidly progressive with high patient morbidity. The vulvovaginal component can lead to distressing symptoms, distortion of normal anatomy with vaginal stenosis that results in the loss of sexual function and deterioration in the quality of life. This case highlights the importance of multidisciplinary approach and need for close follow up.*

**Keywords:** *Lichen Planus, vaginal stenosis.*

### Introduction

Lichen Planus is a chronic inflammatory autoimmune disorder affecting about 2% of the population. Classical LP may presents as pruritic, polygonal, purplish, plaques; many variants also exist. The sites involved over the skin includes the flexor surface of the upper and lower limbs, the nail beds may also be affected that results in grooving, ridging and complete loss of nail. Involvement of scalp may lead to scarring and alopecia. Vulvovaginal involvement may be very distressing and leads to the loss of sexual functions. Oral involvement may present with the symptoms of intermittent pain and severe discomfort and carries the small risk of malignant transformation. Unfortunately an accurate diagnosis is often missed. Hence, increased awareness of genital involvement is needed, also it is important for the clinicians to ask for vaginal involvement when patient presents with OLP.

### Case Presentation

A 36 yrs old P2L2 was referred with a 10 yrs history of vulval and vaginal soreness, A prior diagnosis of Lichen Planus has been made by a dermatologist but vulval steroid ointment and vaginal oestrogens had failed to control the symptoms. History taking and examination revealed that that the main complaint was progressive dyspareunia. Other complaints included itching and soreness in the vagina and oral inflammation. Treatment history revealed that patient was on medication in the form of local steroids and oral cyclosporin advised by a dermatologist for the last 5 months.

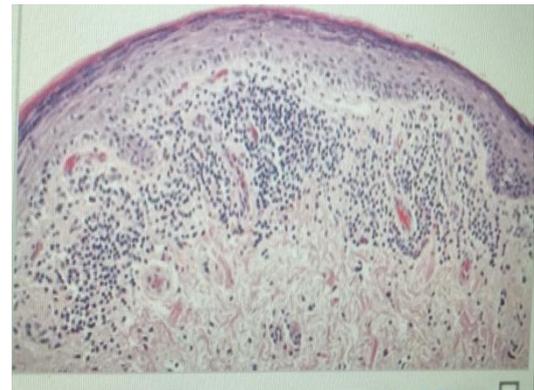
### Vulvovaginal Examination

On examination it was found that cutaneous lesions and inflammation was present and vagina was erythematous with narrowing of introitus. Vaginal adhesions were present to mid one third of the vaginal length. Patient already had previous treatment records, hence the diagnosis of

vulvovaginal lichen planus was made. All her routine investigations were normal but urine examination repeatedly showed presence of pus cells in the range of 20-25/hpf. Hence it is important for the clinicians to be aware of the clinical presentation and provide prompt palliation and counseling to the patient. This patient was scheduled for EUA and removal of the adhesions and vaginal biopsy. During surgery vaginal adhesions were removed and biopsy from the vaginal mucosa was taken. Patient was put on 30 mg of Prednisolone daily and vaginal steroids in the form of clobetasol 0.5%.



**Vaginal adhesions involving the middle third of the vagina**



### Microscopic examination

#### Follow Up

Patient was followed up after 3 wks and 6 wks. Vaginal examination showed some erythema but patent. Patient could perform sexual intercourse but some dyspareunia was present.

#### Oral Examination

Extraorally there was no abnormality detected. On intraoral examination there was the whitish lacy striae present with some pigmentation.



## Discussion

The overall prevalence of lichen planus in the general population is about 0.1-4.0%.<sup>[1][3]</sup> This is commonly diagnosed between the age of 30-60 years but it can occur at any age. Females are more commonly affected than males with the ratio 3:2.

Lichen Planus is a chronic autoimmune disorder primarily affecting the middle aged women. An abnormal T cell mediated response is the main underlying factor that results in basal epithelial cells to be recognized as foreign cells due to the change in the antigenicity of the surface epithelium but LP seems to be multifactorial.<sup>[3]</sup> Drugs like diuretics and antimalarials, stress, beta blockers, NSAIDs, ACE inhibitors and penicillamines are some well recognised aggravating factors. Systemic diseases that are associated with LP are diabetes mellitus, ulcerative colitis hypertension and myasthenia gravis. The cutaneous form is associated with liver disorders like hepatitis C.

This uncommon condition was first described by Erasmus Wilson in 1869 with peak incidence in sixth decade.<sup>[4][5]</sup> This disease is more common in females than in males. Vulvovaginal involvement includes soreness, burning, pruritis and difficult coitus, vaginal discharge and sometimes difficulty in urination. There are three types of LP that can involve vulva and vagina

1. Papulosquamous – in these small pruritic papules are present
2. Hypertrophic—small hypertrophic rough lesions are present
3. Erosive—erythematous lesions with striae or white border that are typically called Wickhams striae. Patient usually present with distortion of normal anatomy, loss of labia minora vaginal adhesions and narrowing of the introitus (as in our case)

Lichen Planus has a unique microscopic appearance that is similar between cutaneous, mucosal and oral presentations and main features are –

- a. Thickening of stratum corneum and stratum granulosum
- b. Thickening of stratum spongiosum with the formation of colloid bodies(also known as Civatte bodies
- c. Liquefactive degeneration of the basal layer, with separation of underlying lamina propria
- d. Infiltration of T cells in a band like pattern into the dermis
- e. Development of saw tooth appearance of rete pegs, which is more common in non oral forms

Treatment of lichen planus includes multidisciplinary approach including including explanation of the chronicity of the disease with provision of support and guidance to the patient. Antihistaminics may prevent some itching and amollients reduce friction. Local anaesthetic gels may also be used to provide analgesia.<sup>[6]</sup>

Ultrapotent topical steroids are the treatment with best outcomes. Resistant disease require oral steroids (as in our case).Other treatments include cyclosporins, dapson and retinoids. Surgery may be needed for breaking down the vaginal adhesions and restore the sexual functions. Potent topical steroids must be used along with vaginal dilators to prevent restenosis. The risk of malignancy is unknown but it is thought that long standing inflammation may lead to neoplastic cellular development in the epithelium. In 2016, interferon gamma/CXCL 10 axis was hypothesised to be the target for the treatment that reverse the inflammation during treatment.

This case highlights that the combination of treatment provided in a multidisciplinary setting can result in a successful outcome for this extremely challenging condition.

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