Lichen Planus

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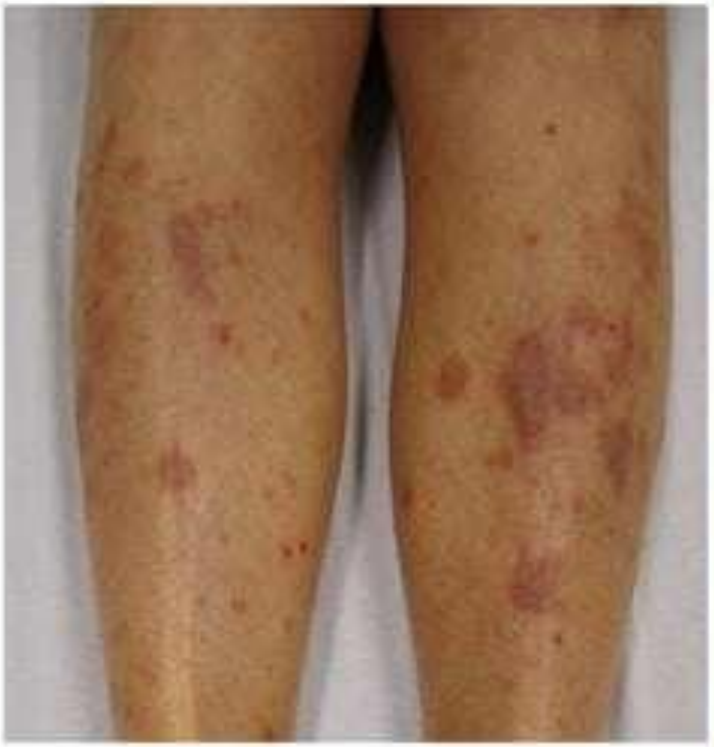
Lichen Planus

- **Lichen planus** *(LP) is a disease of the skin and/or mucous membranes that resembles lichens.*
- *It is thought to be the result of an autoimmune process with an unknown initial trigger.*
- *Where the trigger is known, a lesion is known as a* **lichenoid lesion.**



Epidemiology :

- **Risks** *for the condition include:*
  - *Exposure to medicines, dyes, and other chemicals (including gold, antibiotics, arsenic, iodides, chloroquine, quinacrine, quinide, phenothiazines, and diuretics)*
  - *Diseases such as hepatitis C*

- **Race:** *No racial predispositions.*

- **Sex:** *Lichen Planus effects* **women more** *compared to men* **(3:2) ratio**.

- **Age:** *More than* **two thirds of lichen planus patients are aged 30-60 years**; *however, lichen planus* **can occur at any age**

Time Period:

- It is a **chronic** disease.
- It has a **sub-acute presentation** i.e lesions appear usually 1-2 weeks after being exposed to stimulus.
- The condition often **clears up within 18 months** but **may come and go for years**.
- Removal of stimulus could result in a quick resolution, eg **if** lichen planus is **caused by a medicine**, the **rash should resolve** once **medicine is stopped.**

Syndrome Statement:

- *It presents with* **3 types of lesions**:
  - **Mouth** *Lesions*
  - **Skin** *Lesions*
  - **Other** *manifestations*

Oral Lesions:

- *May be* **tender or painful** *(mild cases may not cause plain)*
- *Are located on the* **sides of the tongue**, **inside of the cheek**, *or* **gums**
- *Look like* **blue-white spots**
- *Form lines in a* **lacy network**
- **Gradual increase in size** *of the affected area*
- *Sometimes form painful ulcers*

Skin Lesions:

- Are usually found on the **inner wrist, legs, torso, or genitals**
- Are **itchy**
- Have even sides (**symmetrical**) and **sharp borders**
- Occur in single lesion or clusters, often at the **site of skin injury**
- May be **covered with thin white streaks** or scratch marks (called **Wickham's striae**)
- Are **shiny or scaly** looking
- Have a **dark, reddish-purple color** on the **skin** or are **gray-white** in the **mouth**
- May develop blisters or ulcers

Other Manifestations:

- Dry mouth
- Hair loss
- Metallic taste in the mouth
- Ridges in the nails (nail abnormalities)

Treatment Goal

- *The goal of treatment is to* **reduce symptoms** *and* **speed healing.**
- *If symptoms are* **mild**, *it may* **not need treatment.**

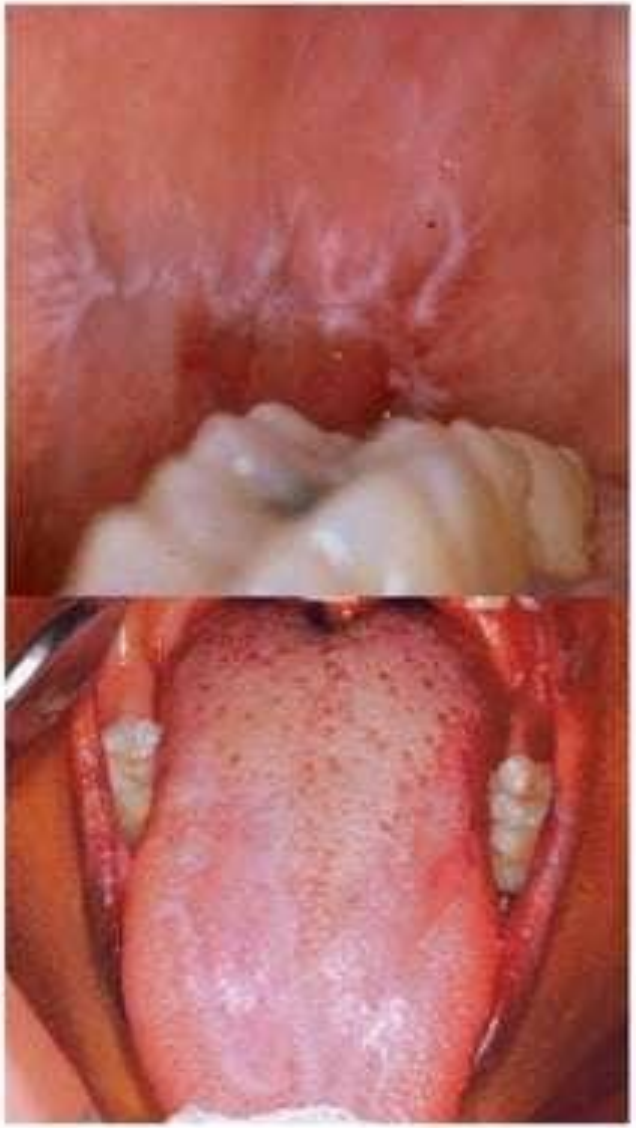
Treatments and Rationale

- Treatments may include:
  - Antihistamines
  - Medicines that calm down the immune system, such as cyclosporine (in **severe** cases)
  - **Lidocaine** mouthwashes to **numb the area** and make eating more comfortable (for mouth sores)
  - **Topical corticosteroids** (such as clobetasol) or oral corticosteroids (such as prednisone) **to reduce swelling** and **lower immune responses**
  - **Corticosteroids shots** into a sore
  - **Vitamin A as a cream** (topical retinoic acid) or taken mouth (acitretin)
  - **Dressings** placed over skin medicines **to protect from scratching**
  - **Ultraviolet light therapy** for some cases

Detailed Description

Lichen Planus :

- *Lichen planus is a* **cell-mediated immune response** *of* **unknown origin.**
- *It may be* **found with other diseases of altered immunity**, *such as ulcerative colitis, lichen sclerosis, myasthenia gravis etc.*
- *Lichen planus has been found to be* **associated with hepatitis C virus infection**, *chronic active hepatitis, and primary biliary cirrhosis*
- *It is most likely an* **immunologically mediated reaction**, *though the* **pathophysiology in unclear.**



Signs and Symptoms

Signs and Symptoms:

- The following may be noted in the **patient history**:
  - Lesions **initially developing** on **flexural surfaces** of the limbs, with a **generalized eruption developing after a week** or more and maximal **spreading within 2-16 weeks**
  - **Pruritus of varying severity**, depending on the type of lesion and the extent of involvement
  - Oral lesions that **may be asymptomatic**, **burning**, or **even painful**
  - In cutaneous disease, **lesions typically resolving within 6 months** (>50%) to 18 months (85%); **chronic disease is more likely oral lichen planus** or with large, annular, hypertrophic lesions and mucous membrane involvement

Signs and Symptoms:

- **In addition** *to the cutaneous eruption, lichen planus* **can involve** *the following structures:*
  - *Mucous membranes*
  - *Genitalia*
  - *Nails*
  - *Scalp*

Interestingly, this disease is seldom seen in carefree people, the nervous, high strung person is almost invariably the one in which this condition develops.

Clinical Presentation

Clinical Presentation

- The clinical presentation of lichen planus has several variations, as follows:
  - Hypertrophic lichen planus
  - Atrophic lichen planus
  - Erosive/ulcerative lichen planus
  - Follicular lichen planus (lichen planopilaris)
  - Annular lichen planus
  - Linear lichen planus
  - Vesicular and bullous lichen planus
  - Actinic lichen planus
  - Lichen planus pigmentosus
  - Lichen planus pemphigoides

Clinical Forms: Oral Lichen Planus

- ***Reticular***, *the* **most common presentation** *of oral lichen planus,* **characterised by the net-like appearance** *of lacy white lines, oral variants of* **Wickham's straiae**. *This is usually asymptomatic.*
- ***Erosive/ulcerative***, *the* **second most common form** *of oral lichen planus,* **characterised by oral ulcers** *presenting with* **persistent, irregular areas of redness, ulcerations and erosions** *covered with a* **yellow slough**. *This can* **occur in one or more areas of the mouth**. *In 25% of people with erosive oral lichen planus, the gums are involved, described as* **desquamative gingivitis** *(a condition not unique to lichen planus).* **It may be the initial or only sign of the condition.**
- ***Papular***, *with* **white papules**.
- ***Plaque-like*** *appearing as a* **white patch** *which* **may resemble leukoplakia**
- ***Atrophic***, *appearing as areas. Atrophic oral lichen planus* **may also manifest as desquamative gingivitis.**
- ***Bullous***, *appearing* **as fluid-filled vesicles** *which project from the surface.*

DESCRIPTION

Diagnosis & Histopathology

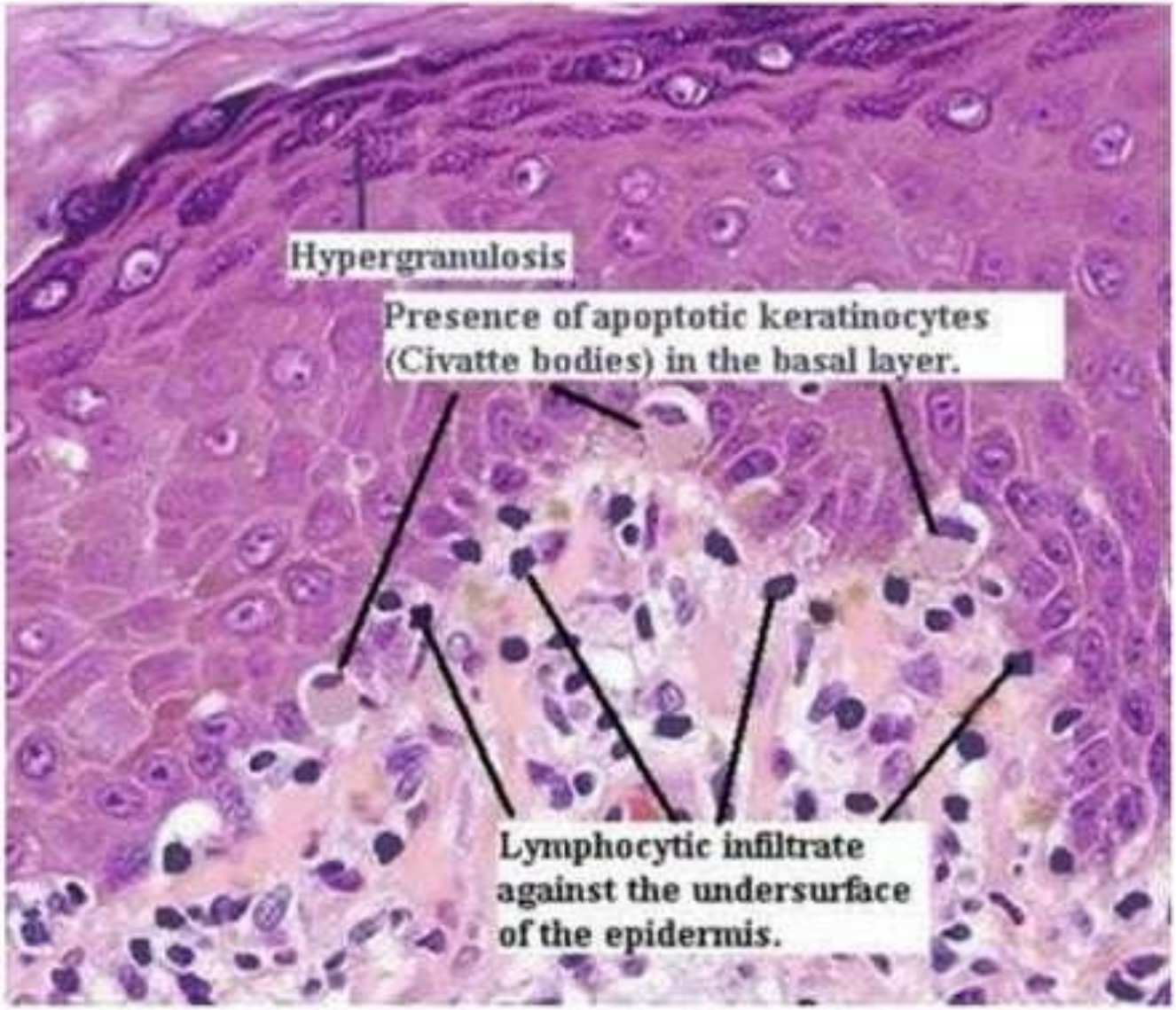
Diagnosis:

- **Direct immunofluorescence** *study reveals globular deposits of immunoglobulin M (IgM) and complement mixed with apoptotic keratinocytes.*
- *No imaging studies are necessary.*
- *Microscopy confirms OLP.*

Histopathology:

- Distinguishing **histopathologic features** of lichen planus include the following:
  - **Hyperkeratotic epidermis with irregular acanthosis** and **focal thickening** in the granular layer
  - **Degenerative keratinocytes** (colloid or Civatte bodies) in the lower epidermis; in addition to apoptotic keratinocytes, colloid bodies are **composed of globular deposits of IgM** (occasionally immunoglobulin G [IgG] or immunoglobulin A [IgA]) and complement
  - **Linear or shaggy deposits** of fibrin and fibrinogen in the basement membrane zone
  - In the upper dermis, a **bandlike infiltrate of lymphocytic** (primarily helper T) and **histiocytic cells** with many **Langerhans cells**

HISTOPATHOLOGY



Management

Management

- *Lichen planus is a* **self-limited disease** *that usually* **resolves within 8-12 months.**
- *Mild cases can be* **treated with fluorinated topical steroids.**
- *More severe cases, especially those with scalp, nail, and mucous membrane involvement,* **may necessitate more intensive therapy.**

Pharmacological Management

- Pharmacologic therapies include the following:
  - **Cutaneous lichen planus:** Topical steroids, particularly class I or II ointments (first-line treatment); systemic steroids; oral metronidazole; oral acitretin; other treatments of unproven efficacy (eg, mycophenolate mofetil and sulfasalazine)
  - **Lichen planus of the oral mucosa:** Topical steroids; topical calcineurin inhibitors; oral or topical retinoids (with close monitoring of lipid levels)

Pharmacological Management

- Patients with widespread lichen planus may respond to the following:
  - Narrow-band or broadband UV-B therapy
  - Psoralen with UV-A (PUVA) therapy; use of topical ointment at the time of UV-A treatment may decrease the effectiveness of PUVA; precautions should be taken for persons with a history of skin cancers or hepatic insufficiency

Morbidity:

- In lichen planus, **atrophy and scarring** are seen in hypertrophic lesions and in lesions on the scalp.
- **Cutaneous lichen planus does not carry a risk of skin cancer**, but **ulcerative lesions** in the mouth, particularly in men, do have a **higher incidence of malignant transformation**.
- However, the **malignant transformation rate of oral lichen planus is low** (< 2% in one report). **Vulvar lesions** in women may also be associated with **squamous cell carcinoma**.

Complications

Complications:

- **Mouth ulcers** *that are present for a long time may develop into* **oral cancer.**

Summary

SUMMARY

In summary:

- Lichen Planus effects women more compared to men (3:2) ratio, etiology of Lichen Planus is not known, it is characterised by nine P's
  - Papulosquamous disorder
  - Pruritic
  - Polyangular with
  - Plain Topped
  - Pigmented
  - Purple coloured
  - Papules and Plaques
  - Pterygium Unguium present in nails
  - Penile annular lesions

SUMMARY


REMEMBER
9 P's
.Papulosquamou
s disorder
.Pruritic
.Plain Topped
.Polyangular
.Purple
Coloured
.Papule & Plaque
lesions
.Pigmentation
present
.Pterygium
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formation
.Penile Annular
lesion

Thank You!