

Lichen Planus

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Key points

- Introduction
- Causes of lichen planus
- Types of lichen planus
- Affected areas
- Diagnosis and treatment of lichen planus
- Percentage of people affected by lichen planus in world

Lichen Planus is a T-cell mediated autoimmune disease which affects the stratified squamous epithelia of skin, mucous membrane (oral and genital mucosa may be involved) and rarely the nails. It is a group of chronic inflammatory disease which is characterized by skin lesions. These skin lesions include violaceous polygonal flat-topped bumps and plaques which are extremely itchy and painful. Not only the bumps but white lace like patches can also be formed on the inside of mouth, on nails and scalp.¹

Causes

The exact cause of lichen planus is not known except that it is an autoimmune disease (immune system mistakenly attacks its own healthy body cells). Moreover, recent studies have concluded many factors that may trigger lichen planus or are associated with it which include stress, ingestion of medications (antimalarial agents, thiazide diuretics, nonsteroidal anti-inflammatory medicines, angiotensin-converting enzyme inhibitors, pain killers, blood pressure medications, antimalarial, psychiatric drugs, etc.) and specific vaccine induction such as influenza and hepatitis B vaccine. Some infections, viruses and localized skin diseases also plays a part in triggering lichen planus. Some examples are hepatitis C, human herpesvirus (HHV), specifically (HHV)-6 and HHV-7, varicella zoster, human papilloma virus 16 and herpes simplex.). Furthermore, metals such as gold, mercury and copper are associated with lichen planus. Last but not the least, a potential environmental trigger is UV-filters in sunscreens and hair-care products which are observed to be linked with one of many types of lichen planus i.e. lichen planopilaris.²

Types of lichen planus

Some major types include cutaneous, mucosal and appendageal lichen planus. Further types include:

- Hypertrophic lichen planus
- Ulcerative lichen planus
- Bullous lichen planus
- Lichen planus pemphigoids
- Lichen planus pigmentosus
- Inverse lichen planus

Oral lichen planus which has further subtypes:

- Reticular
- Erosive
- Papular
- Plaque like
- Atrophic
- Bullous

Affected area

Areas most commonly affected include shins, ankles, lower back, dorsal hands, flexor wrists and legs. Other areas may include lips, esophagus, vagina, glans penis and rarely nails.

After the healing of lesions, hyperpigmentation occurs and scars may appear which take a lot of time to disappear.³



Figure 1: Lichen Planus on the wrist.⁴



Figure 2: Clinical aspect of CLP. Small, polygonal, flat-topped, violaceous papules that may coalesce into plaques (A) Plaques on the wrist, (B) Dorsal aspect of the foot, (C) Disseminated papules and plaques on the back, (D) Plaques on the elbow.⁵



Figure 3: (a) Reticular oral lichen planus over right buccal mucosa. (b) Reticular oral lichen planus over left buccal mucosa. (c) Histopathological analysis showing moderately dense superficial perivascular lichenoid infiltrate of lymphocytes and plasma cells with irregular acanthosis and vacuolation of the basal layer. The dermoepidermal junction is focally infiltrated by lymphocytes and shows scattered necrotic keratinocytes (at x400, H and E).⁶

Diagnosis and treatment

The main diagnosis is on the basis of clinical appearance such as papules and plaques. Lichen planus is not cured for lifetime; it may appear after several years of treatments. There are many different treatments which may include soothing moisturizers, topical therapies (vitamin D derivatives, corticosteroids, retinoid, and keratolytic agents which break down the scalp). Thickness, area and size of plaque determine the choice of topical agents Overall, it is concluded that even after many years of research difficulties are faced to find a permanent cure for the disease.⁶

Percentage of people affected by lichen planus in the world.

Less than 1 percent of people are affected by lichen planus in this world. It is not gender specific but mostly middle aged women are affected. Not only adults but children can also be a victim of this disease.

References

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