Lichen planus

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Lichen planus Epidemiology

chronic, inflammator disease of unknown etiology

- ✓ prevalence of LP **0.44% - 2%**
- ✓ typically affects middle-aged adults of both genders between 30 and 60 yrs (most commonly **at the age of 50-55 y**)
- ✓ no sexual predilection is evident but some reports indicate a **slight predominance in women**

Lichen planus
Etiopathology

- **genetic background:**
  HLA-B7, HLA-DRw9/DR9, HLA-DR3, HLA-B27, HLA-B51, and HLA-Bw57
- **viral infections**: HCV and HBV
- **anxiety / stress**

Lichen planus
Etiopathology

- ✓ **drugs** : β-blockers, nonsteroidal anti-inflammatory drugs, methyldopa, penicillamine, gold, antimalarials, ACE inhibitors

- ✓ coexistence with **autoimmune diseases** (celiac disease, autoimmune thyroid diseases, Sjögren syndrome)

- ✓ increased risk of developing **dyslipidemia**

Lichen planus. Clinical presentation

- skin
- scalp
- oral mucosa
- genital mucosa
- nails

Lichen planus. Skin Clinical presentation

primary lesion-
a shiny, red/purple-colored, flat-topped papule
Wickham’s striae (fine whitish points or lacy lines)

Lichen planus. Skin Clinical presentation

- most commonly affects the extremities, particularly the **flexural surface of the wrists** and ankles, forearms, lower legs and thighs, palms and soles
- lesions are pruritic but secondary excoriations are rarely seen.
- response to trauma (**Koebner phenomenon**)

Lichen planus. Skin Clinical presentation

6 P

Pruritic
Purple
Polygonal
Planar
Papules
Plaques

Clinical variants. Hypertrophic lichen planus

hyperkeratotic, flat-topped plaques, typically affecting the anterior lower legs

Clinical variants. Hyperpigmented lichen planus.

hyperpigmented, lichenoid plaques distributed in sun-exposed or flexural areas

Clinical variants. Annular atrophic lichen planus

rare subtype of LP characterized by the development of violaceous plaques with central clearing and atrophy

Clinical variants.
Actinic lichen planus

arising in sun-exposed areas, triggered by ultraviolet (UV) light and tends to affect patients with deeply pigmented skin in India, the Middle East, and eastern Africa.

Clinical variants. Bullous lichen planus. Lichen planus pemphigoides

- **bullous**- vesicles and bullae (hands and feet)

- **pemphigoides**- a cross-over syndrome of LP and bullous pemphigoid.

Lichen planus.
Scalp involvement

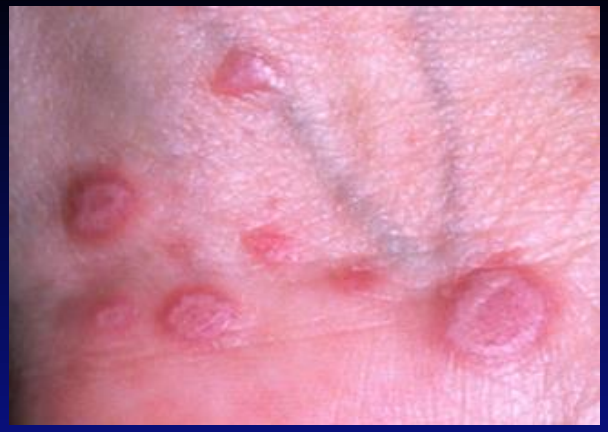
- LP involves hair follicles in a condition known as lichen planopilaris (LPP) **cicatricial alopecia** may result
- women are affected much more commonly than men

Lichen planopilaris. Clinical variants

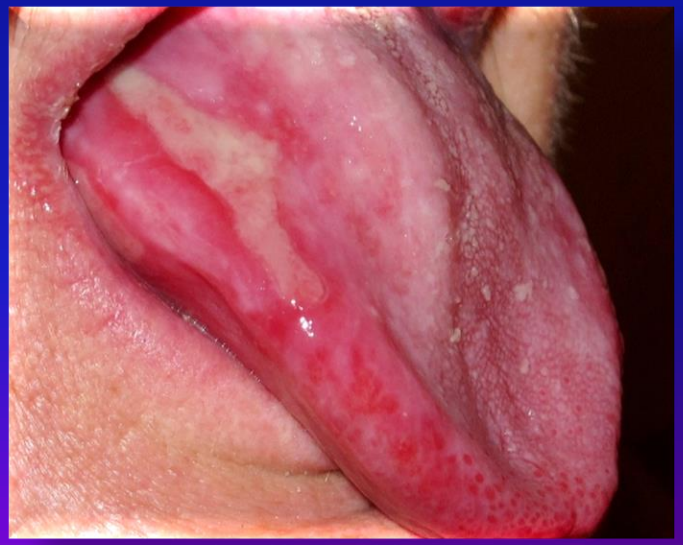
- **classic type**
- **frontal fibrosing alopecia** (scarring alopecia of the frontal scalp)
- **Graham–Little syndrome** (triad of:
  1 cicatricial alopecia of the scalp,
  2 perifollicular keratotic papules on the skin
  3 nonscarring alopecia of the axillae and pubic area)

Lichen planus. Nails

- longitudinal ridging, distal splitting, thinning of the nail plate



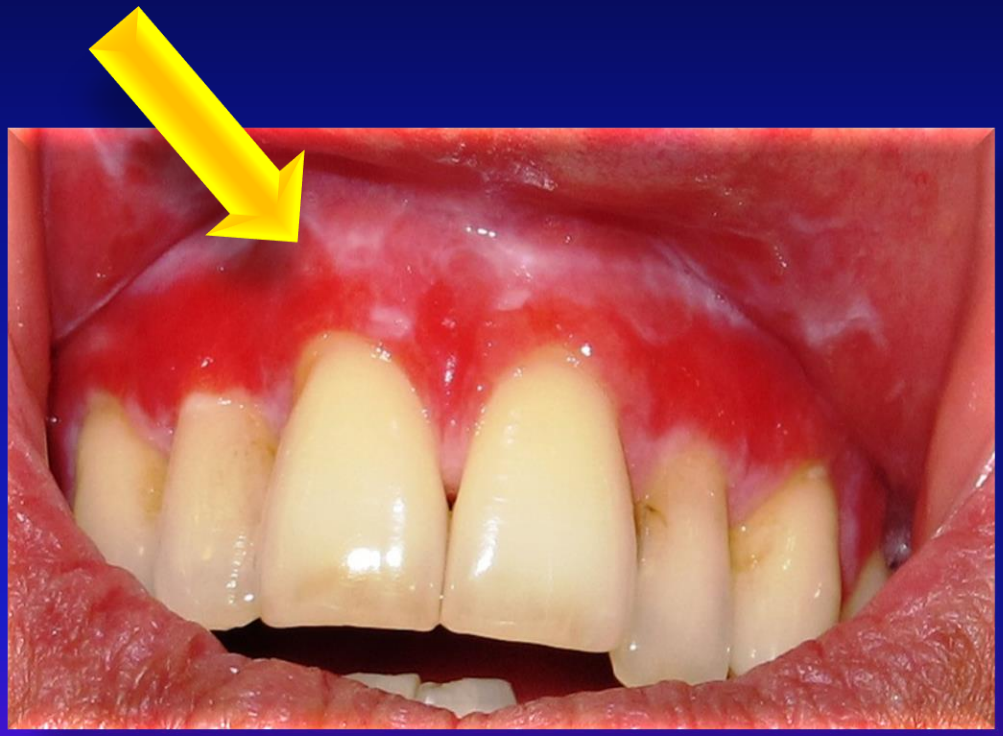
50-60%



Oral lichen planus. Location

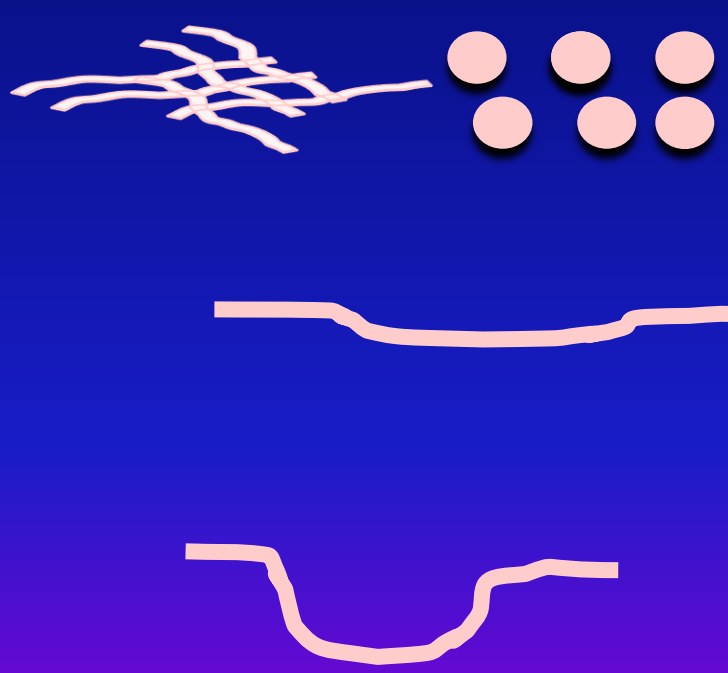
60-90% buccal mucosa

Desquamative gingivitis



Oral lichen planus. Clinical forms

- reticular
- atrophic
- erosive



Lichen planus. Genital mucosa

Vulvovaginal lichen planus

Forms:

- **erosive (85%-90%)**
- **papular**
- **hypertrophic**

Lewis et al. 2014
Kirchtsig et al., 2005
Coper. et al., 2006

Genital lichen planus

pain
burning
itching
scar formation
dyspareunia
dysuria

Vulvovaginal gingival lichen planus

Vulvitis

Vaginitis

Gingivitis

Setterfield J.Fet al. 2006, Petruzzi M.,et al..2005

Vulvovaginal gingival lichen planus- VVG LP

OTHER NAMES:

- ✓ **oro-vaginal-vulvar lichen planus**
- ✓ **plurimucosal erosive lichen planus**
- ✓ **Hewitt-Pelisse syndrome**
- ✓ **peno-gingival syndrome (men)**

Oral mucous membranes in **vulvovaginal gingival lichen planus**

- **gingiva**
- **buccal mucosa**
- **tongue**
- **hard palate**
- **labial mucosa**
- **floor of the mouth**

Setterfield J. et al., 2006, Eisen et al., 2005,; Mignogna et al., 2005

Vulvovaginal gingival lichen planus

- 75% - peri- and postmenopausal women
- chronic course
- 70-90% - scar formation
- coexisting with autoimmune diseases (alopecia areata, vitiligo, thyroiditis)
- 80% - HLA DQB1*0201

Setterfield E. et al..2006, Cooper et al., 2008, Chew 2013

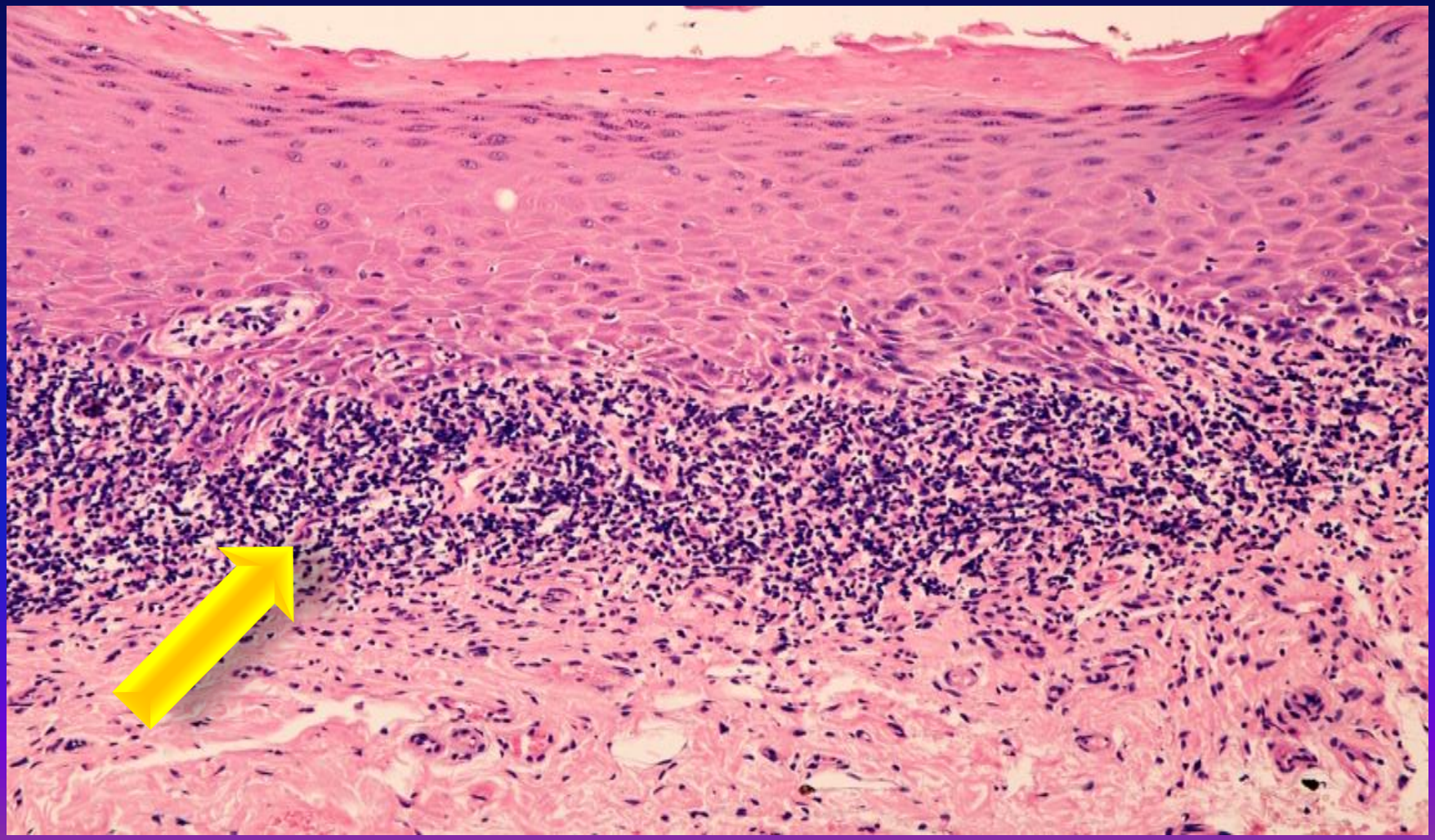
Lichen planus Pathogenesis

- activated T lymphocytes are recruited to the dermoepidermal junction and induce apoptosis in basal keratinocytes
- both CD4+ and CD8+T lymphocytes are found in the lichenoid infiltrate of LP

Lichen planus. Histopathology

- band-like **lymphohistiocytic infiltrate** at the dermo-epidermal junction with
- hydropic degeneration of the epidermis
- presence of **necrotic keratinocytes**
- **irregular acanthosis** may have a saw-toothed appearance.
- hyperorthokeratosis and **granulosis** is also seen,

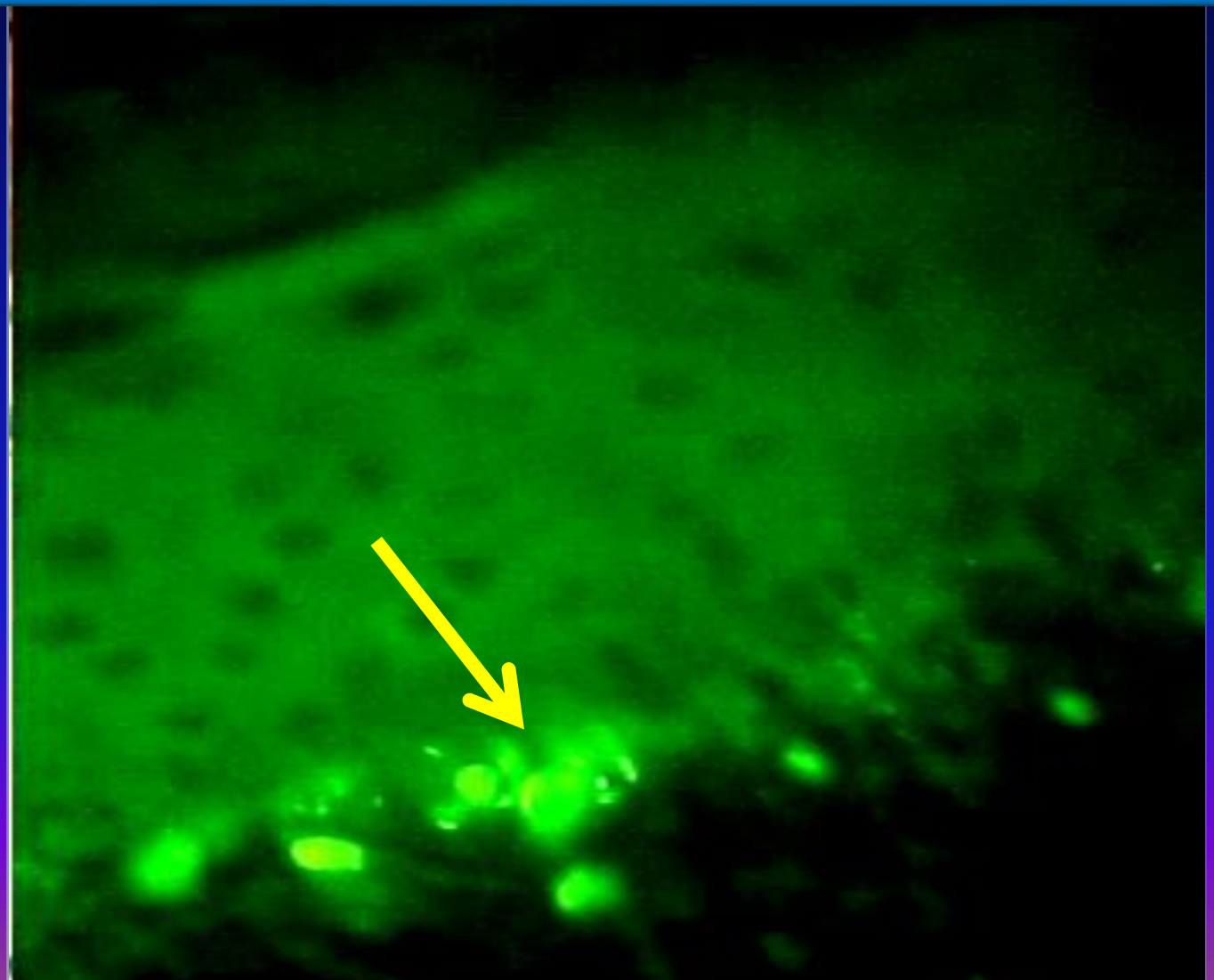
Lichen planus. Histopathology



Lichen planus.
Direct immunofluorescence test

- deposition of several immunoglobulins at cytoid bodies

Lichen planus.
Direct immunofluorescence test



Lichen planus. Differential diagnosis

Skin: drug-induced reactions, lues
Scalp: DLE, muous membranes (cicatricial) pemphigoid
Oral mucosa: pemphigus, and other autoimmune bullous diseases, SLE, candidiasis, leukoplakia
Genital mucosa: lichen sclerosus
Nails: onychomycosis, psoriasis

Lichen planus Treatment

Topical

- medium- to high-potency topical **glucocorticosteroids**
- **calcineurin inhibitors** (tacrolimus, pimecrolimus)

Lichen planus . Treatment

Systemic

glucocorticosteroids

eg 20-40 mg prednisone daily

oral retinoids (acitretin)

cyclosporine

mycophenolate mofetil

metothrexate

phototherapy

SKIN **classic**

hypertrophic, hyperpigmented

annular atrophic

bullous and pemphigoides

SCALP **classic**

frontal fibrosing

Graham-Little syndrome

ORAL MUCOSA **reticular**

atrophic

erosive

GENITAL MUCOSA **erosive**

papular

hypertrophic