Potentially malignant disorders of oral mucosa

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Terminology

- *oral potentially malignant disorders*. This is meant to emphasise that the risk is only potential and may never materialise.
- ‘Premalignancy’ and ‘precancer’ imply that cancer will definitely develope, and these terms are best avoided, although they are widely used.

Oral potentially malignant disorders

- Leukoplakia
- Erythroplakia
- Speckled leukoplakia
- Oral submucous fibrosis
- Pipe smoker’s keratosis
- Chronic candidosis
- Lichen planus
- Discoid lupus erythematosus
- Tertiary syphilis

Risk factors

- genetic predisposition, age (usually older than 45 years),

2- Tobacco use; smoking and smokeless.

- 3- Betel quid (pan) use; tobacco and spices wrapped in betel leaf.
- 4- Alcohol use.
- 5-Diet and nutrition;.
- 6- Poor oral health and dental hygiene.
- 7-infective agent; human papillomavirus, candida,
- 8-immunedificniciency; congenital, immunosuppression, HIV infection
- 9- Ultraviolet irradiation

Diagnostic method

- *Patient history*
- *Clinical examination*
- *Investigations*

include blood investigations, oral swab for microbiological assessment, and incisional or excisional biopsy for histopathological examination and diagnosis.

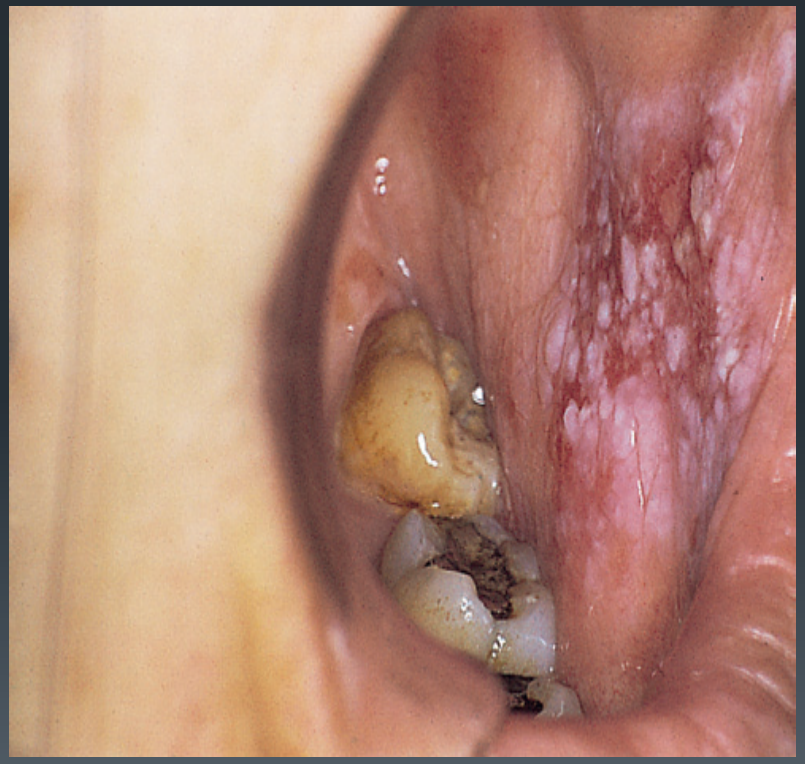
Leukoplakia

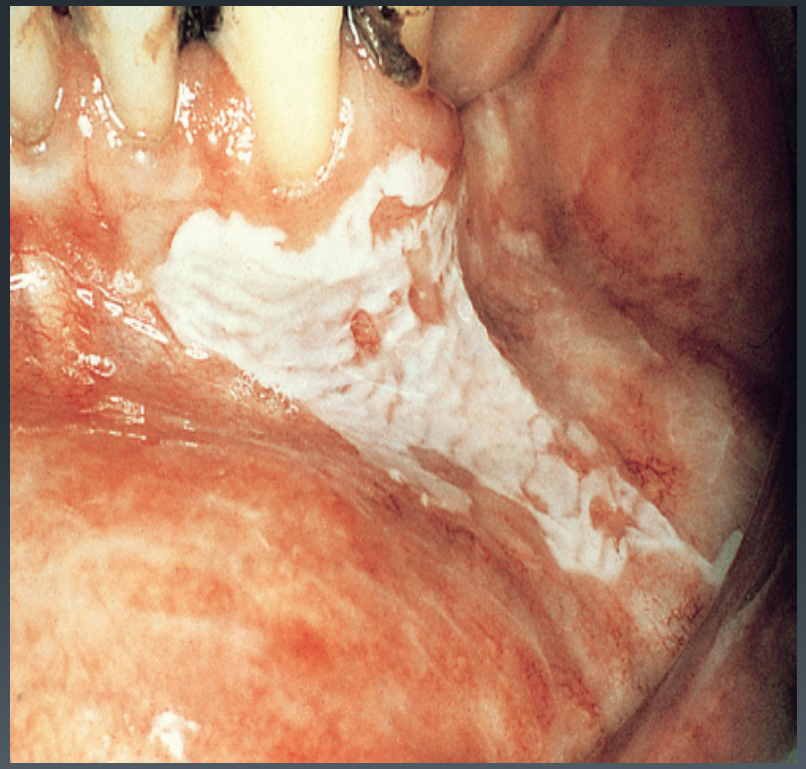
- Leukoplakia defined by the World Health Organization as ‘clinical white patches that cannot be wiped off the mucosa and cannot be classified clinically or microscopically as another specific disease entity (such as lichen planus)’.

Classification of leukoplakias: Based on clinical appearance

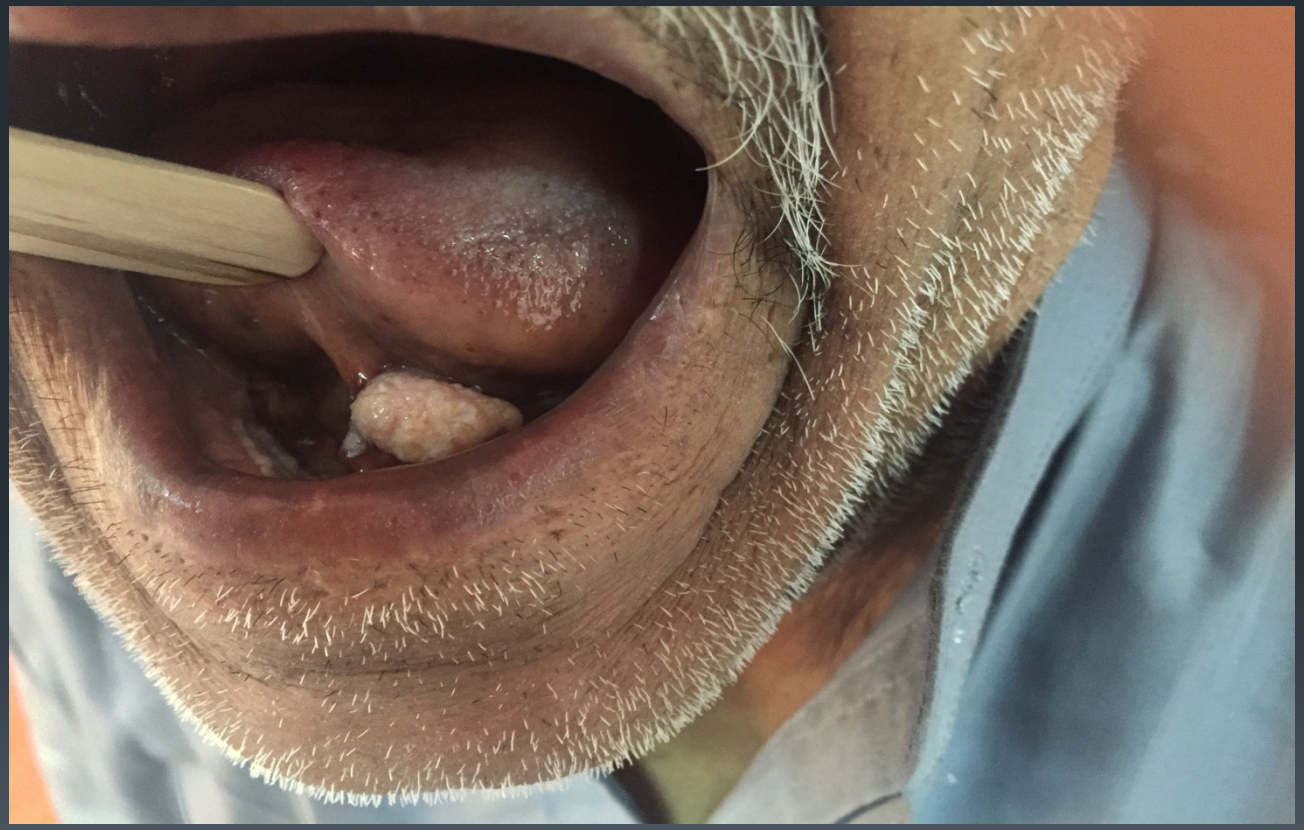
- **Leukoplakia: homogeneous**
- Flat
- Corrugated
- Wrinkled
- **Leukoplakia: non-homogeneous**
- Verrucous wart-like projections.
- ■ Nodular
- ■ Erythroleukoplakia (speckled) lesions with both red and white areas, usually white flecks or nodules on an atrophic erythematous base

Speckled leukoplakia&Homogeneous leukoplakia





Verrucous leukoplakia



Malignant transformation

- Risk factors for malignant transformation include:
- *The site of leukoplakia; leukoplakia of the floor of mouth had the highest risk
- * Type of leukoplakia; speckled leukoplakia has the highest malignant potential
- *Thickness of leukoplakia;
- * Long duration of leukoplakia.
- * Leukoplakia in non-smokers..
- *Presence of Candida albicans within the lesion

- ***Epithelial dysplasia*** (from Greek dys = poor and plasia = a moulding) is the combination of architectural and cytological abnormalities seen in tissues that indicate a risk of developing carcinoma.

The grade of epithelial dysplasia refers to its severity or intensity:

- 1. Mild dysplasia refers to alterations limited principally to the basal and parabasal layers.

- 2. Moderate dysplasia demonstrates involvement from the basal layer to the midportion of the spinous layer.
- 3. Severe dysplasia demonstrates alterations from the basal layer to a level above the midpoint of the epithelium.
- 4. Carcinoma in situ is defined as dysplasia involving the entire thickness of the epithelium.

Treatment

- ***Low-risk lesions*** can be managed conservatively ,smoking cessation advice or other habit intervention. Candidal infection should be eliminated and follow up instituted,
- ***High-risk lesions***, on the basis of clinical features or dysplasia grade,
- **Options for Ablating of High-Risk Potentially Malignant Lesions**

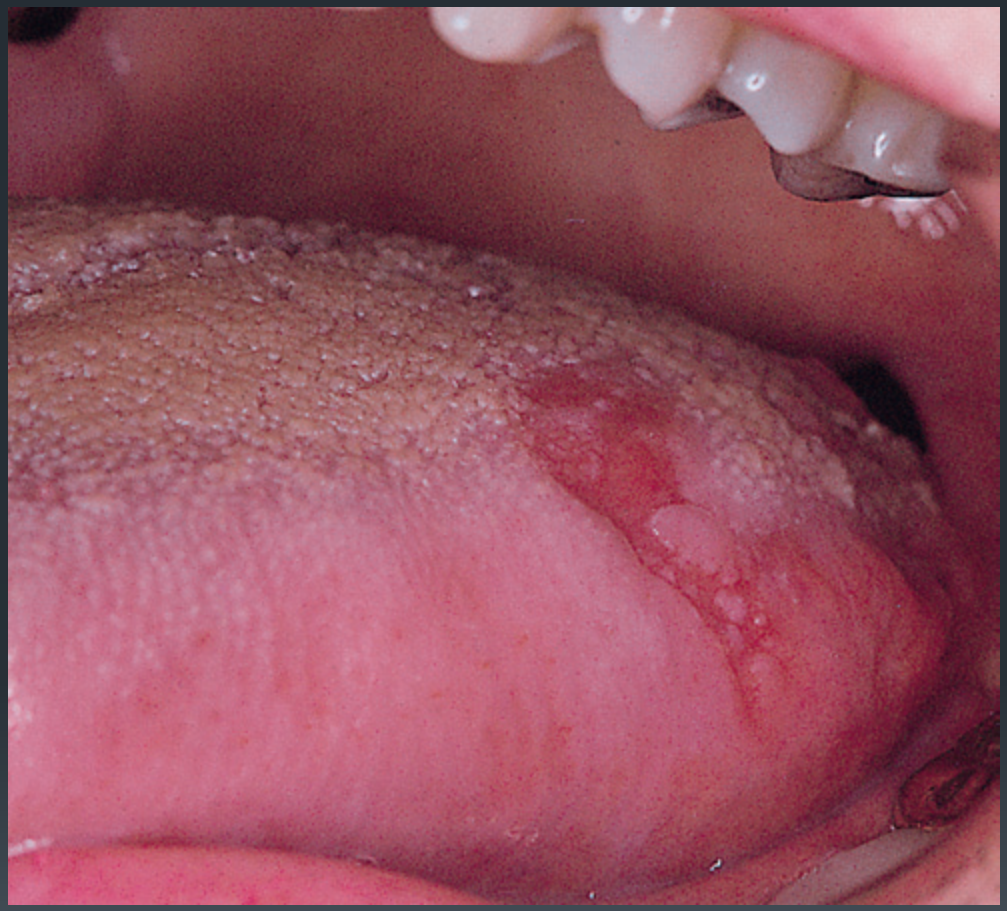
• Surgical excision, with grafting if required

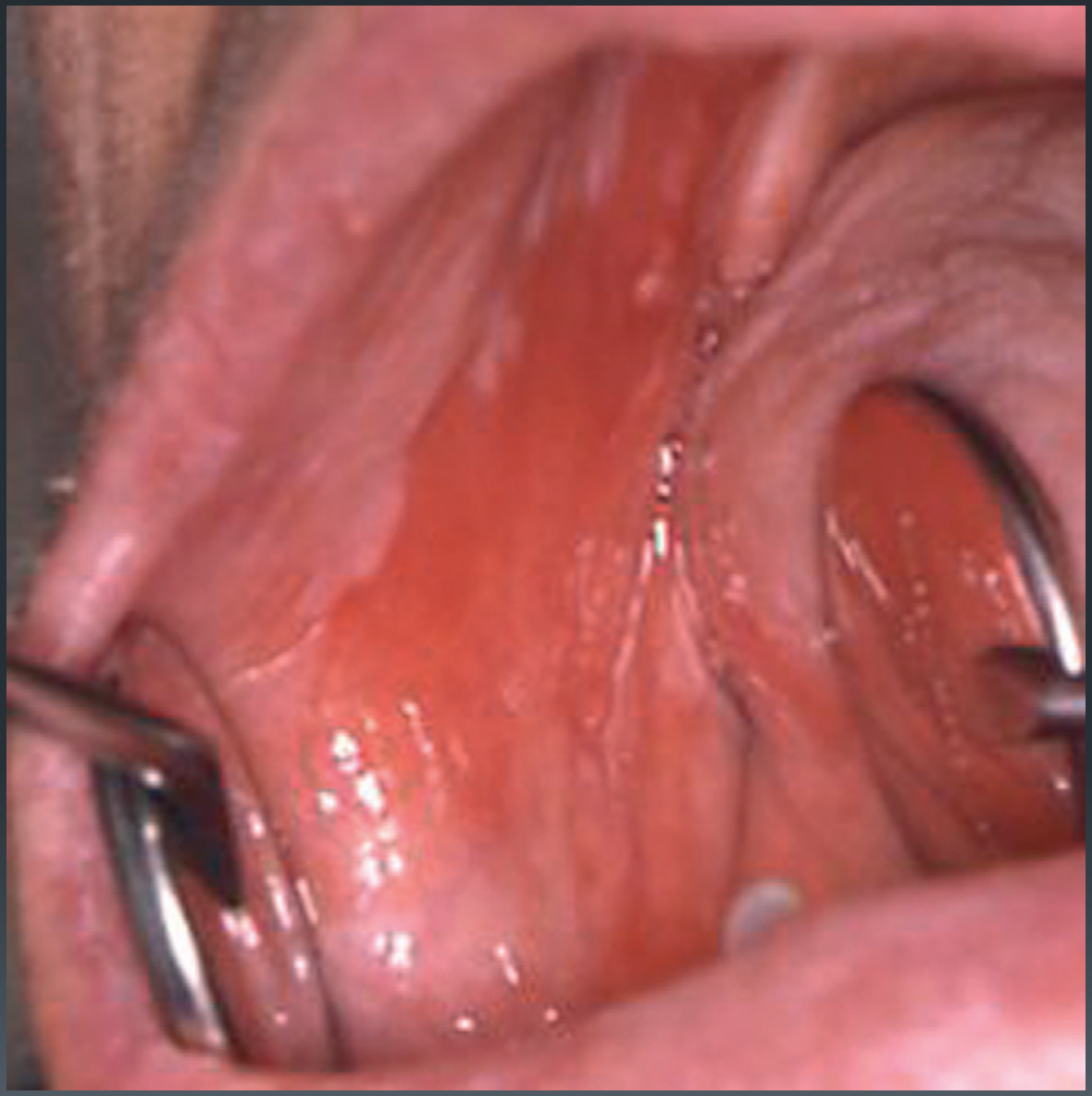
• Laser excision

• Laser vaporisation

Erythroplakia

- Is defined by the W.H.O as‘any lesion of the oral mucosa that presents as bright red velvety plaques which cannot be characterized clinically or pathologically as any other recognizable condition’
- lesions are well-defined velvety red plaques and are the oral lesions with the most severe dysplasia and greatest predilection to develop to carcinoma. : at least 80% are severely dysplastic or frankly malignant
- The epithelium is atrophic and lacks keratin production allowing the underlying microvasculature to show through and produce a red appearance.



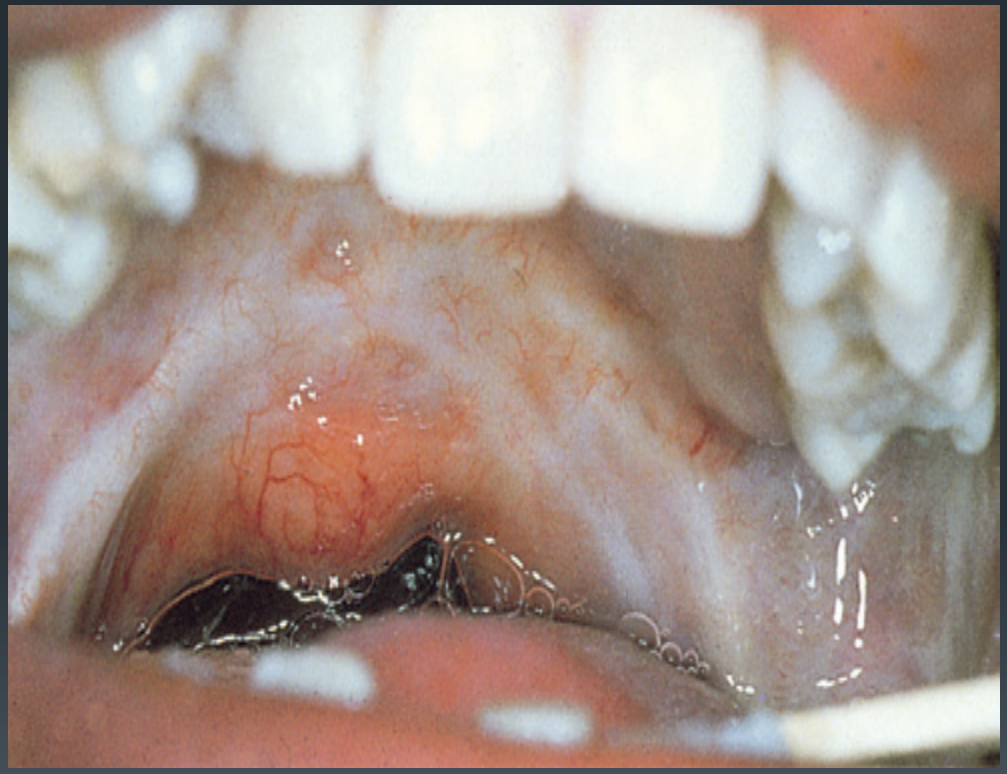


Diagnosis and Treatment

- Any source of irritation identified is removed, if the lesion does not regress after 2 weeks then biopsy is indicated
- Complete excision of the lesion with clear margins down to the submucosal level provides a specimen that can be assessed adequately for margin control

Oral submucous fibrosis

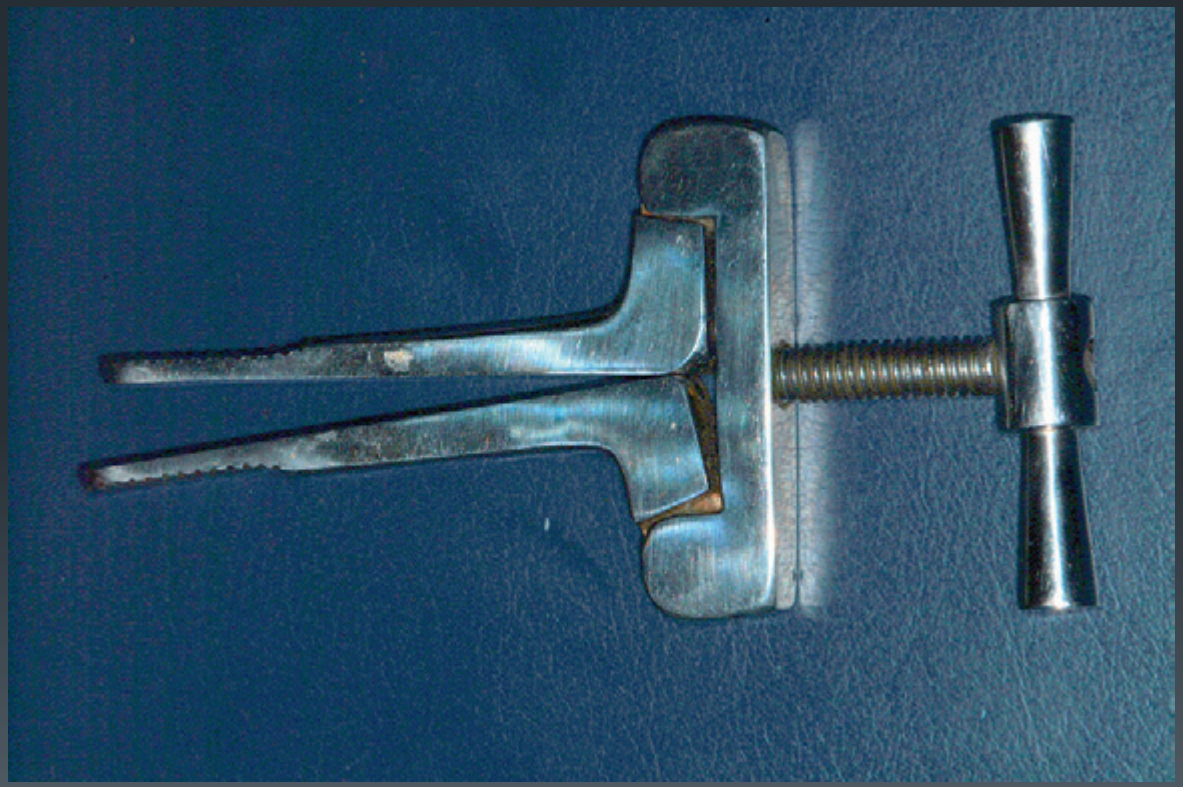
- condition in which the oral mucosa becomes fibrotic, immobile and contracts progressively causing limitation of opening.
- The etiology is linked to chewing of betel quid (paan); other factors have been implicated like excessive consumption of spices, deficiencies of iron, vitamin B, and protein and genetic susceptibility.



Treatment

- Oral submucous fibrosis does not regress with habit cessation,
- 1- Nutritional; vitamins and minerals; antioxidants (e.g., lycopene, B complex).
- 2- Physiotherapy; and heat therapy.
- 3- Intralesional injections; of corticosteroids,
- 4-surgical for moderate to severe cases may require surgical splitting or excision of the fibrous bands with or without grafting by skin graft, or using flaps .

Device used by a patient with OSFM to increase oral opening



Lichen planus and lichenoid reaction

- Definition Immunologically-mediated disease of stratified squamos epi. Of mucocutaneous tissues. Can affect skin, oral mucosa.
- **Aetiology** unknown? T-cell-mediated immune response

Clinical features

- **Oral**
- Most commonly affects buccal and labial mucosa, tongue, gingiva Usually bilateral . Often asymptomatic. Ulcerated/atrophic areas may become painful.
- • Six clinical subtypes have been identified and more than one type may be evident:

• **reticular** (70-80%) - raised white lines/striae;

• **erosive** (9%) - painful, slow healing ulcers/erosions,;

• **atrophic** - red atrophic areas,

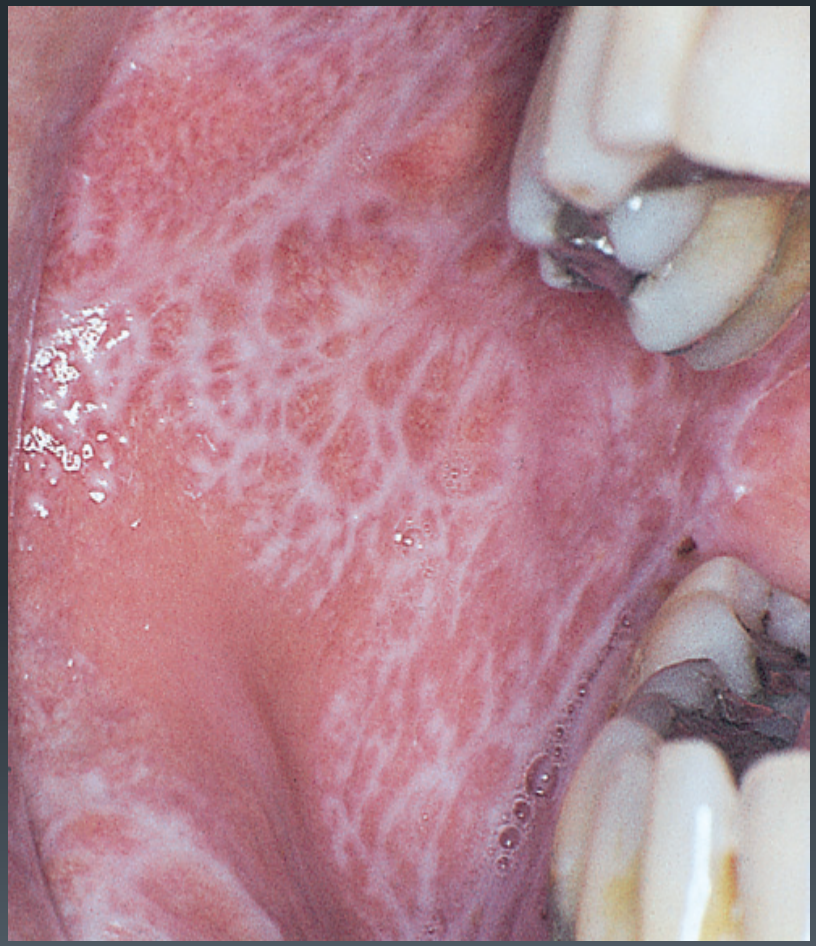
• **papular** - white papules;

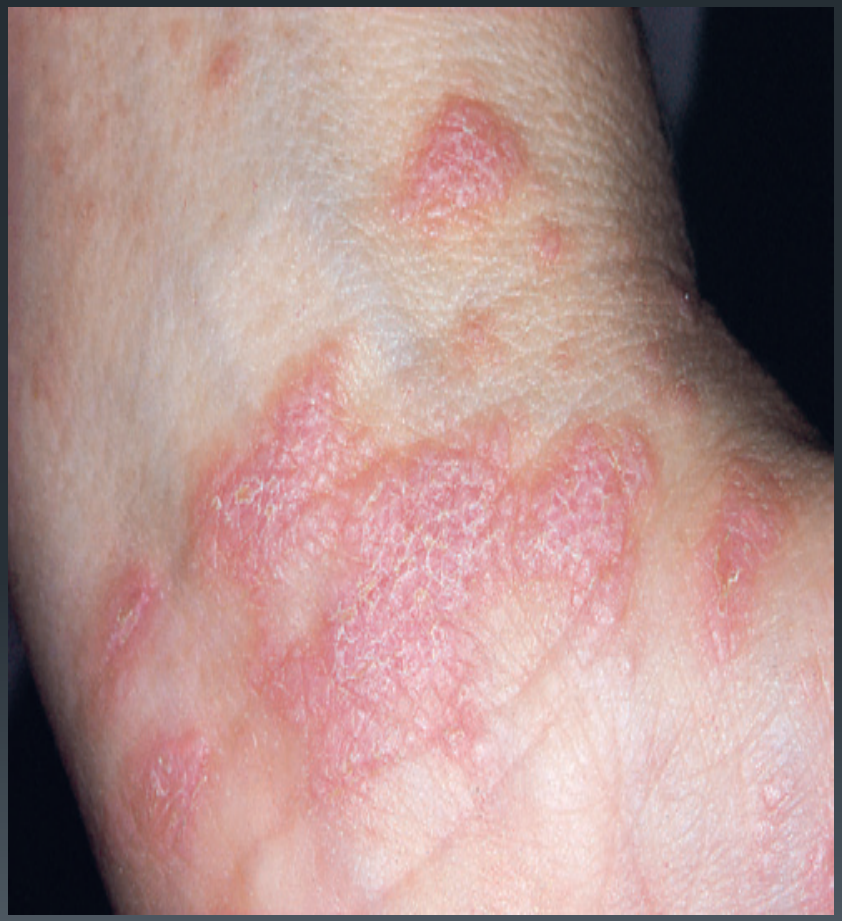
• **plaque-like**-thick white plaques;

.bullous.

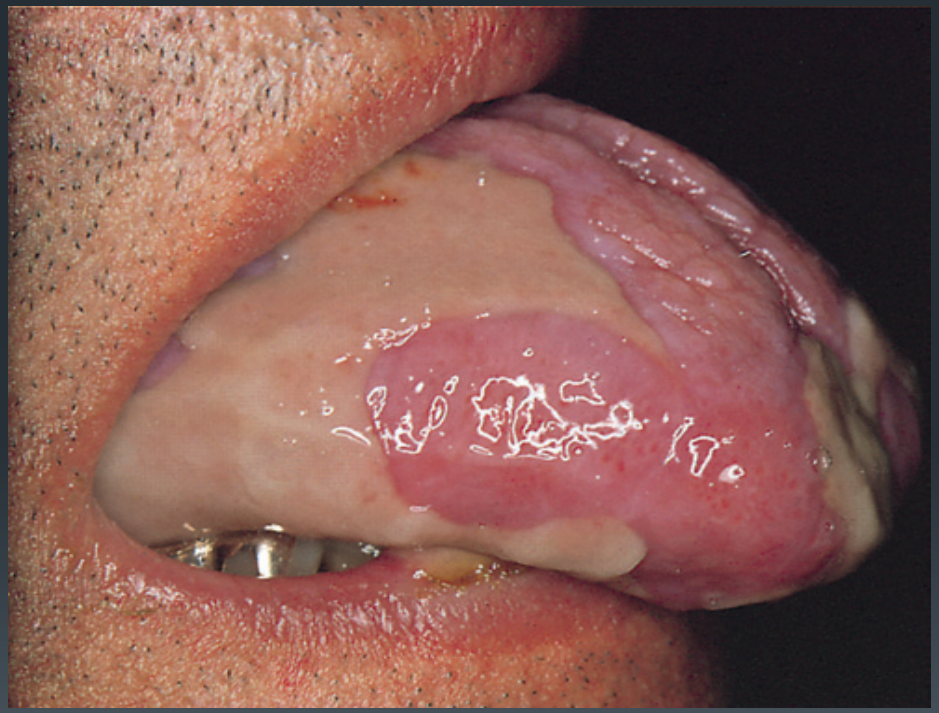
-

- **Other manifestations**
- • Violet papules: often with flexor white (Wickham's) striae on surface wrists, ankles, itchy (Koebner phenomenon), but painful when scratched.
- **Nail involvement**: vertical ridges, occasional destruction of nail.
- **Scalp**: may develop permanent bald patches. .

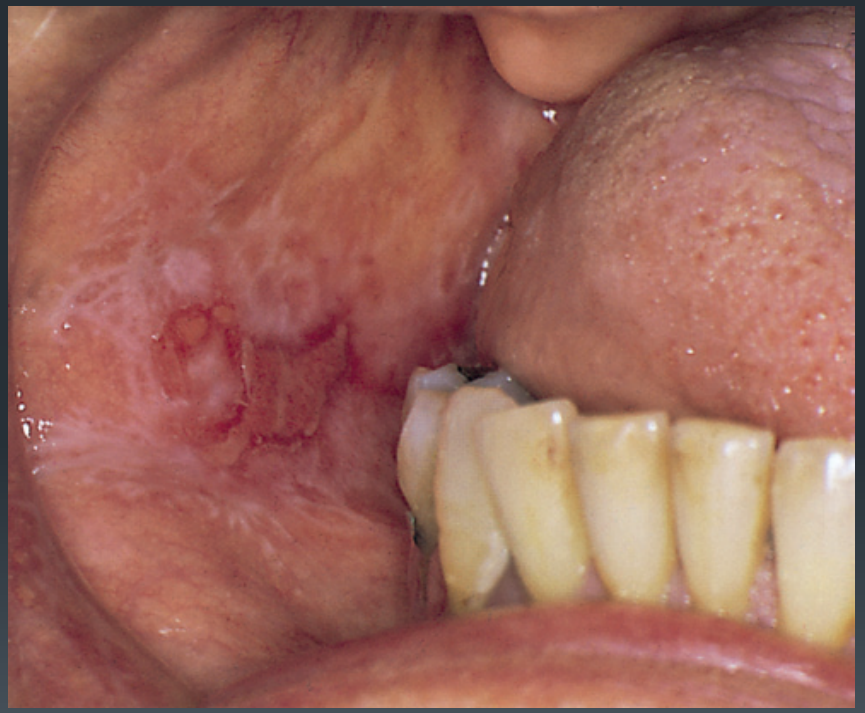




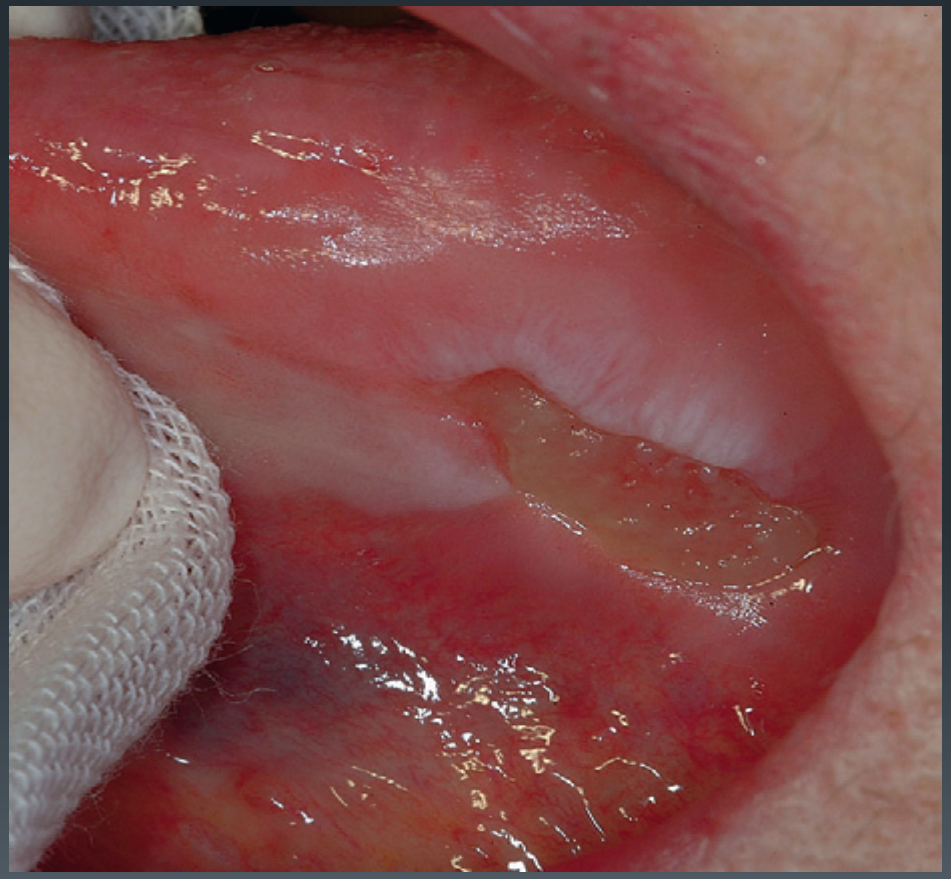
Severe erosive lichen planus.



Lichen planus, atrophic type.

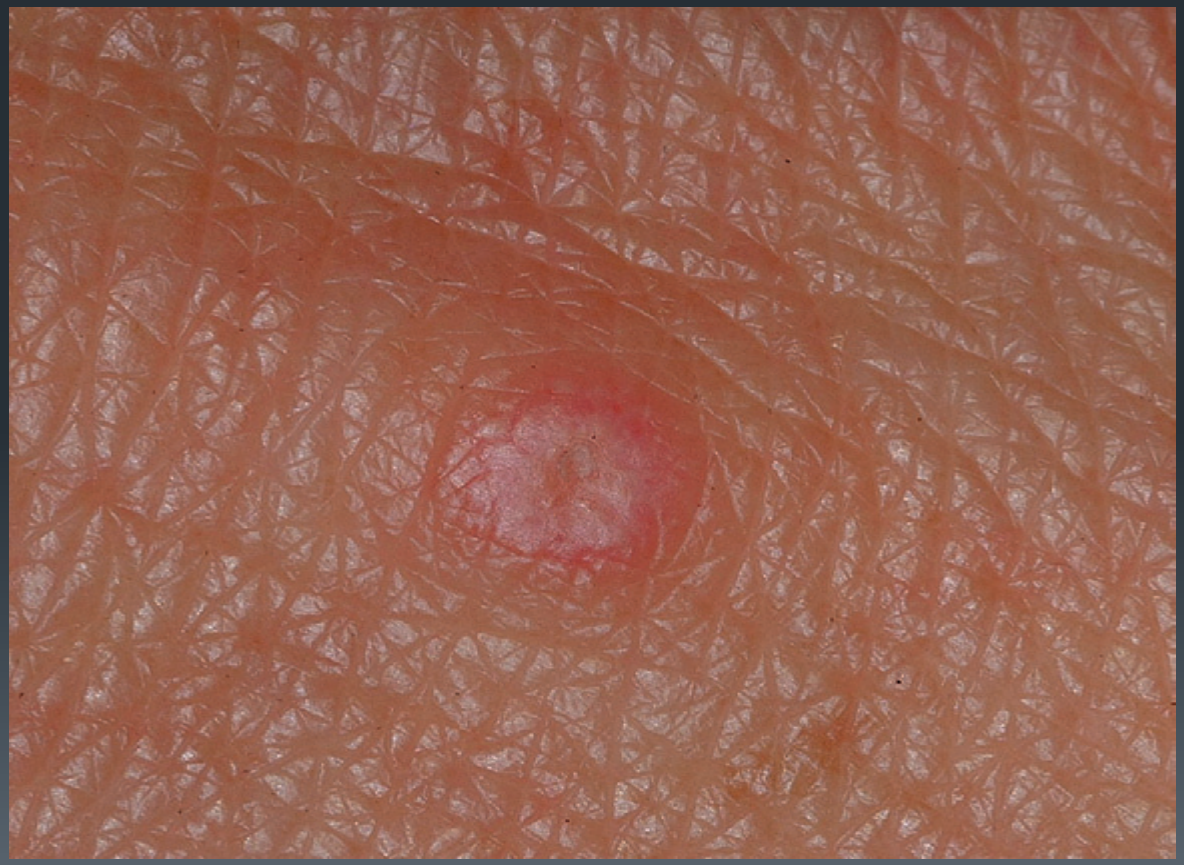


Erosive lichen planus



Nail changes in lichen planus

Skin papules in lichen planus with whitish Wickham striae



- **Treatment**
- • Asymptomatic: reassurance, no active treatment.
- If pain/ulceration:
- : • topical steroids -hydrocortisone/betamethasone lozenges,spray

or inhaler, prednisolone or betamethasone mouthwash: • Intralesional triamcinolone for large, non-healing ulcers: • 2-3 weeks oral prednisolone

Lichenoid reactions

- Closely resemble lesions of erosive LP, but due to drug reaction, hypersensitivity to amalgam, constituents of tooth paste.
- **Features suggesting a lichenoid reaction**

• Onset closely associated with potential cause

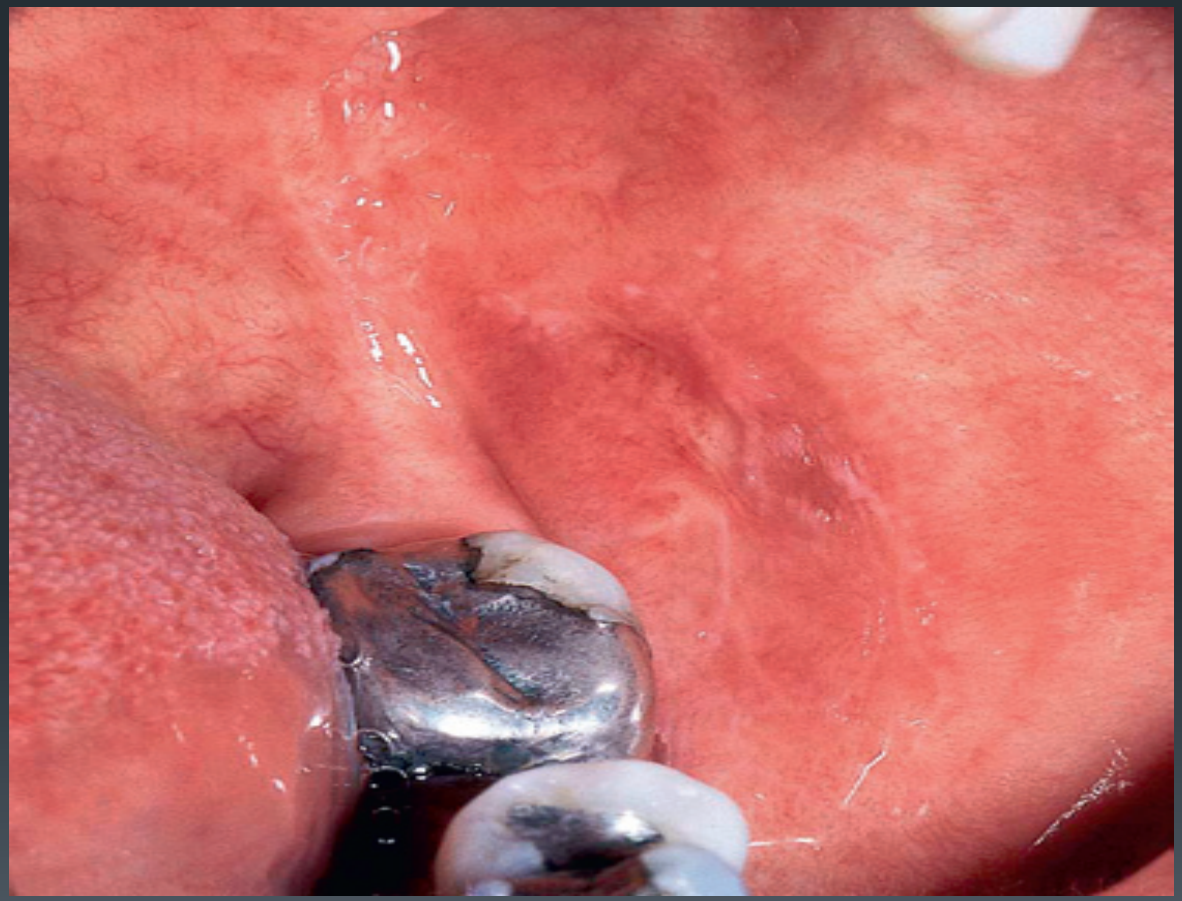
• Unilateral lesions or unusual distributions

• Unusual severity

• Widespread skin lesions

• Localised lesion in contact with potential cause

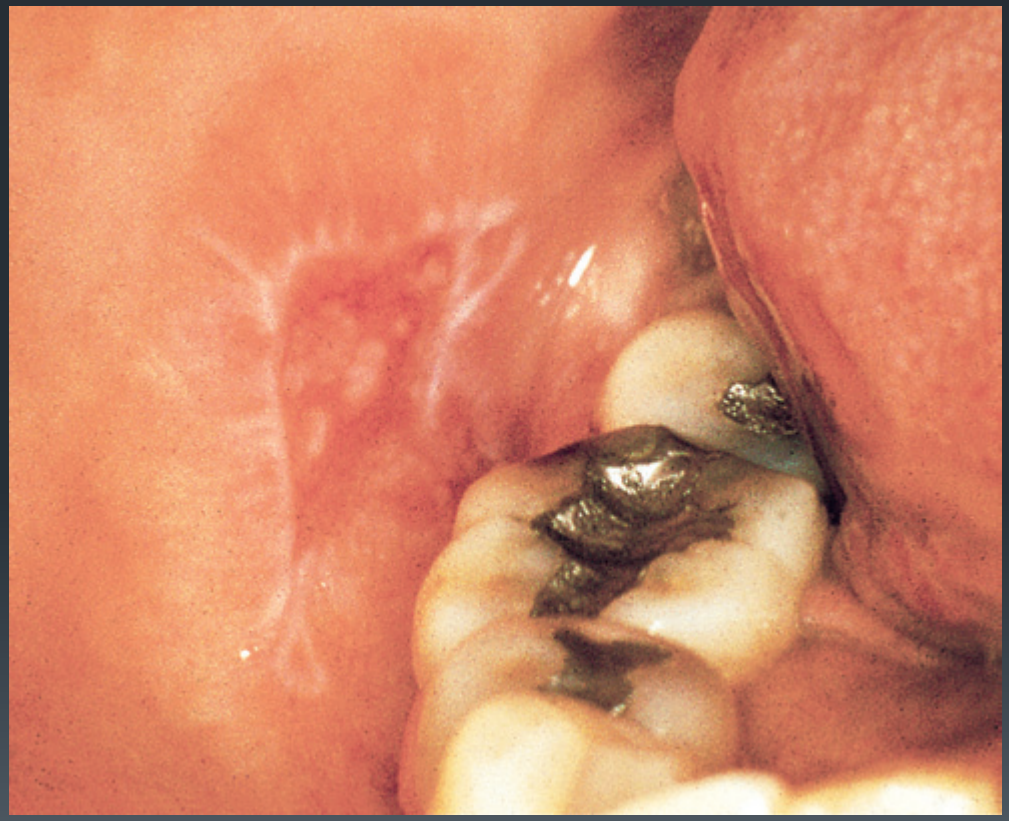
Lichenoid reaction to amalgam.



LUPUS ERYTHEMATOSUS

- Lupus erythematosus is an autoimmune connective tissue disease with two main forms, systemic and cutaneous. Either can give rise to oral lesions that resemble oral lichen Planus
- Oral changes are variable patterns of white and red areas. They may be identical to lichen planus, with ulcers, erythema and striae, although the striae are typically less well defined than in lichen planus.
- Oral lesions may respond to topical corticosteroids,

Lupus erythematosus



Thank You