

**** *no patient handout***

Leukoplakia - Oral Mucosal Lesion

Synopsis

Leukoplakia is a clinical term only and refers to a mucosal white plaque that does not represent any other known clinical or histopathologic entity; it is therefore a clinical diagnosis of exclusion. Frictional keratoses have a specific etiology and are therefore not considered to be leukoplakias. Leukoplakia is a common oral finding that can be a precursor of mucosal squamous cell carcinoma. It is more common in smokers, but that may be because white plaques in smokers tend to be biopsied more frequently. The risk factors for this condition are the same as those for squamous cell carcinoma, and malignant transformation to invasive carcinoma occurs in 6% to 18% of patients.

All leukoplakias represent one of the following:

1. Epithelial dysplasia, carcinoma in situ, or invasive carcinoma
2. Hyperkeratosis of unknown etiology

In the older literature, the prevalence of dysplasia, carcinoma in situ, or invasive carcinoma (usually squamous cell carcinoma) was 10% to 20%. However, more recent data suggest that this may be as high as 40%.

Codes

ICD10CM:

K13.21 – Leukoplakia of oral mucosa, including tongue

SNOMEDCT:

274134003 – Leukoplakia

Look For

Look for white, usually asymptomatic plaques on any mucosal surface. Sites more often associated with epithelial dysplasia and invasive carcinoma are ventral tongue, floor of mouth, and soft palate. There are two main types of leukoplakia.

In localized leukoplakia, the white plaque is unilateral:

- Homogenous leukoplakia consists of a plaque, usually well demarcated, with slight fissuring of the surface.
- Non-homogenous leukoplakia may have red areas (erythro-leukoplakia or speckled leukoplakia), verrucous areas (verrucous leukoplakia), or nodular areas.

In proliferative leukoplakia, the most common type is the non-homogenous type, especially the verrucous type (for further discussion, see Proliferative Verrucous Leukoplakia in VisualDx).

Diagnostic Pearls

The majority of leukoplakias are sharply demarcated from the surrounding tissues.

Differential Diagnosis & Pitfalls

- **Frictional keratoses**, specifically morsicatio mucosae oris and benign alveolar ridge keratosis, are located on nonkeratinized areas that are readily traumatized and on the alveolar ridge, respectively, and have specific histopathologic findings.
- **Oral hairy leukoplakia** is most frequently seen in HIV and AIDS patients, and Epstein Barr virus is present in the biopsy.
- **Lichen planus** is usually bilateral, symmetric, and reticulated.
- **Candidiasis** resolves with anti-fungal therapy.
- Smokeless tobacco keratosis occurs where the tobacco is placed.
- **Nicotinic stomatitis** occurs on the palate almost exclusively and is symmetric with red punctate areas.
- **Squamous cell carcinoma**
- **Dyskeratosis congenita** (these are true leukoplakias that develop in patients with this disease)
- **Leukoedema** is diffuse, gray-white, and disappears on stretching.
- **White sponge nevus** is an extremely rare oral condition with specific histopathologic findings.

Best Tests

Biopsy is always indicated to rule out dysplasia or invasive carcinoma. Biopsies should be taken from different areas of the lesion if the lesion is non-homogenous.

Management Pearls

Treatment is dependent on the specific diagnosis. The patient should be monitored with future visits and additional biopsies as long as the lesion is present.

Therapy

If dysplasia or invasive carcinoma is present, the patient should be referred for excision. There is a high rate of recurrence (20% to 30%) regardless of the technique used.

If the diagnosis is "hyperkeratosis of unknown significance," the options depend on the age of

the patient, medical status of the patient, and size of the lesion. Options include:

1. Narrow removal and lifetime follow-up with wider excision of recurrences.
2. Follow-up of patient with re-biopsies as necessary and removal of lesion if there is noticeable progression in size or change in the nature of the lesion.

The reason that lesions without dysplasia should be considered for removal is because a study has shown that up to 16% of so-called "benign keratoses" develop dysplasia or invasive carcinoma over long follow-ups.

If tobacco use is the cause, cessation of tobacco use is essential.