

## Leukoplakia: A short review on malignant potential

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### ABSTRACT

Oral leukoplakia is one of the most common potentially malignant disorders. Right diagnosis of potentially malignant disorders may help to prevent these lesions from malignant transformation. Proper understanding, recognizing, identification and differentiating these lesions from normal mucosa are necessary for proper treatment.

**KEY WORDS:** Leukoplakia, malignant potential, types

The word leukoplakia means white patch (leuko-white, plakia-patch). It is considered as the premalignant lesions, but now included in a broader term for common usage of tobacco in the form of smoking and chewing. High-risk of malignant transformation is encountered if the risk factors are not eliminated. It has been reported that many oral squamous cell carcinoma develops from the potentially malignant disorders. Correct diagnosis and the right treatment at right time of potentially malignant disorders may prevent malignant transformation of these lesions.

The term “potentially malignant disorders” was defined by World Health Organization (WHO) as the risk of malignancy being present in a lesion or condition either during the time of initial diagnosis or at a future date.<sup>[1]</sup> WHO defined leukoplakia as “a white plaque of questionable risk having excluded (other) known diseases or disorders that carry no increased risk for cancer.”<sup>[2,3]</sup>

### Classification

Clinically it is classified into four types:

- Early or thin
- Homogenous or thick
- Granular or verruciform and
- Speckled or erythroleukoplakia.

Each subdivision has a different malignant transformation potential.<sup>[3]</sup>

### Malignant Potential

Leukoplakia is considered has the most common premalignant lesion. According to the systematic review, the estimated prevalence rate of leukoplakia is 2% worldwide.<sup>[4]</sup> Those lesions present particularly in the floor of the mouth, tongue, lip and vermilion have a high risk of malignant potential.

### Types of Leukoplakia and Their Malignant Potential

Thin leukoplakia frequently becomes malignant without any clinical changes.<sup>[5]</sup>

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Leukoplakia	Risk of malignancy %
Early (thin)	Not assigned
Homogenous	1-7
Verruciform	4-15
Speckled	18-47

## Other Forms of Leukoplakia

### Proliferative verrucous leukoplakia

It is the most aggressive form of leukoplakia and was first described by Hansen *et al.* in 1985. It is multifocal patch often presents with surface projections. The lesion usually tends to spread slowly. Most commonly seen in gingival but other site are also affected.<sup>[4]</sup> Bagan *et al.*<sup>[6]</sup> and Batsakis *et al.*<sup>[7]</sup> have reported that squamous cell carcinoma development in 63.3% and 100% of proliferative verrucous leukoplakia respectively. Usually, the transformation occurs within 8 years of initially diagnosis of proliferative verrucous leukoplakia.<sup>[4]</sup>

### Candidal leukoplakia

Candidal leukoplakia (CL) is a chronic form of candidiasis. It is generally characterized by firm, white, leathery plaques. The lesion is commonly seen on the cheeks, lips, palate, and tongue. Epithelial dysplasia commonly occurs 4–5 times more frequently in CL when compared with other forms of leukoplakia.<sup>[8]</sup>

### Five Clinical Criteria Demonstrate a Particularly High Risk of Malignant Change

- The high risk is considered to be the verrucous type
- If the lesion is associated with erosion or ulceration then, the lesion is suggested to have high malignant potential
- The presence of a nodule in the lesion indicates higher malignant potential
- A lesion that is hard and indurative in its periphery is predictive of malignant change

- Oral leukoplakia seen in the anterior floor of the mouth and undersurface of the tongue is strongly linked to malignant potential.<sup>[9]</sup>

## Conclusion

Most cancers can be prevented if diagnosed at early stages. It is well known fact that most cancers arise from the potentially malignant disorders. Potentially malignant disorders are often overlooked due to inadequate knowledge. Proper understanding, recognizing, identification and differentiating these lesions and thorough knowledge about the malignant potential of these lesions will ensure proper treatment and pay a key role in saving patient life.

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