

原文題目(出處)：	Oral potentially malignant disorders: Is malignant transformation predictable and preventable?
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內文：

Abstract

Leukoplakia is the most common potentially malignant disorder of the oral mucosa. There are no reliable clinicopathological or molecular predicting factors of malignant transformation that can be used in an individual patient and such event can not truly be prevented. Cessation of smoking habits may result in regression or even disappearance of the leukoplakia and will diminish the risk of cancer development either at the site of the leukoplakia or elsewhere in the mouth or the upper aero digestive tract.

The debate on the allegedly potentially malignant character of oral lichen planus is going on already for several decades. At present, there is a tendency to accept its potentially malignant behaviour, the annual malignant transformation rate amounting less than 0.5%. Follow-up visits, e.g twice a year, may be of some value.

It is probably beyond the scope of most dentists to manage patients with these lesions in their own office. Timely referral to a specialist seems most appropriate, indeed.

Introduction

At present, preference is given in the literature to the use of the adjective “potentially malignant” rather than to premalignant or precancerous.

The following disorders are regarded as being potentially malignant: 1) leukoplakia/erythroplakia, 2) submucosa fibrosis, 3) palatal lesions in reverse smokers, and, although still somewhat questionable 4) lichen planus, and 5) discoid lupus erythematosus.

In addition, in patients suffering from rare, inherited syndromes such as xeroderma pigmentosum and Fanconi’s anemia, there is an increased incidence of oral cancer. This is also the case in immunodeficiency, e.g. due to the prolonged use of immunosuppressive drugs or due to an underlying HIV-infection. Oral cancer has also been reported in patients suffering from chronic Graft Versus Host Disease after stem cell transplantation.

In this paper, the emphasis will be on leukoplakia/erythroplakia and lichen planus.

1. Leukoplakia and erythroplakia

In 1978, the World Health Organisation defined leukoplakia as “a white patch or plaque

that cannot be characterized clinically or pathologically as any other disease”

The prevalence of leukoplakia for all ages is approximately one per cent, with an increasing prevalence in adults. The male-female ratio varies in different parts of the world. Smoking is the most common etiologic factor. Nevertheless, leukoplakia may occur in non-smokers as well. Cessation of smoking habits may result in regression or even disappearance of the leukoplakia in a matter of a few months.

Prevalence figures of erythroplakia are only available from studies in South- and South East Asia and are as low as 0.02% The annual malignant transformation rate is actually unknown but is much higher than in leukoplakia.

1.1- Risk factors of malignant transformation in leukoplakia

In general, it seems well accepted that the annual malignant transformation rate of leukoplakia amounts 2%-3% for all clinical subtypes together.

There are numerous reported parameters that allegedly predict future malignant transformation of oral leukoplakia. These parameters include

1. Previously diagnosed cancer in the head and neck region,
2. Older age,
3. Female gender,
4. Absence of smoking habits,
5. Duration of the leukoplakia,
6. Clinical subtype (homogeneous versus non-homogeneous),
7. Large size,
8. Oral subsite such as borders of the tongue and floor of the mouth

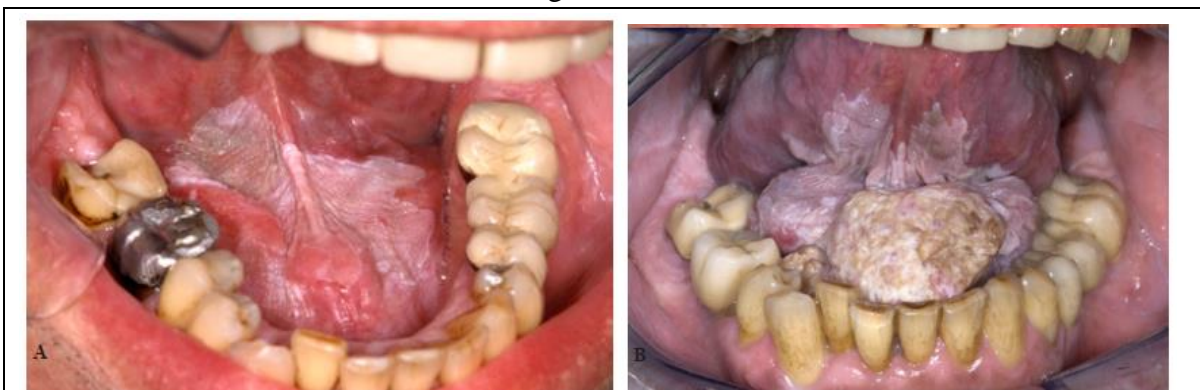


Fig. 1. Homogeneous leukoplakia in a 57-year-old man A). A biopsy showed hyperkeratosis without epithelial dysplasia. The patient was unable to stop smoking and refused any type of treatment. He was lost to follow-up and showed up 12 years later with a large squamous cell carcinoma B).

1.2- Treatment and follow-up

The main treatment modalities for oral leukoplakia can be divided in surgical treatment, including lasers, and non-surgical treatment.

While in oncologic surgery a margin of 1 cm beyond the visible or palpable extent of the

oral cancer is a widely accepted guideline, **no such guideline is available for the treatment of leukoplakia**. Besides, in many leukoplakias there is **no sharp delineation**, thereby **hindering to extent the excision or laser evaporation** well into normal appearing mucosa.

Local recurrences after surgical treatment, including lasers, are not uncommon (Figs. 2,3), the annual **recurrence rate** being approximately **5%-10%** In spite of an occasional retrospective study suggesting the opposite, **surgical treatment of leukoplakia does not seem to reduce** the risk of **future development of oral cancer** either at the site of the leukoplakia or at another site in the oral cavity or the upper aerodigestive tract. Such observation has been made in several recent studies, **e.g. by Arduino et al. and Brouns et al.**

Most likely, **follow-programs will not result in improved survival** in case of cancer development either.

Cessation of smoking habits considerably **reduces the risk of developing cancer** after surgical treatment of oral potentially malignant lesions

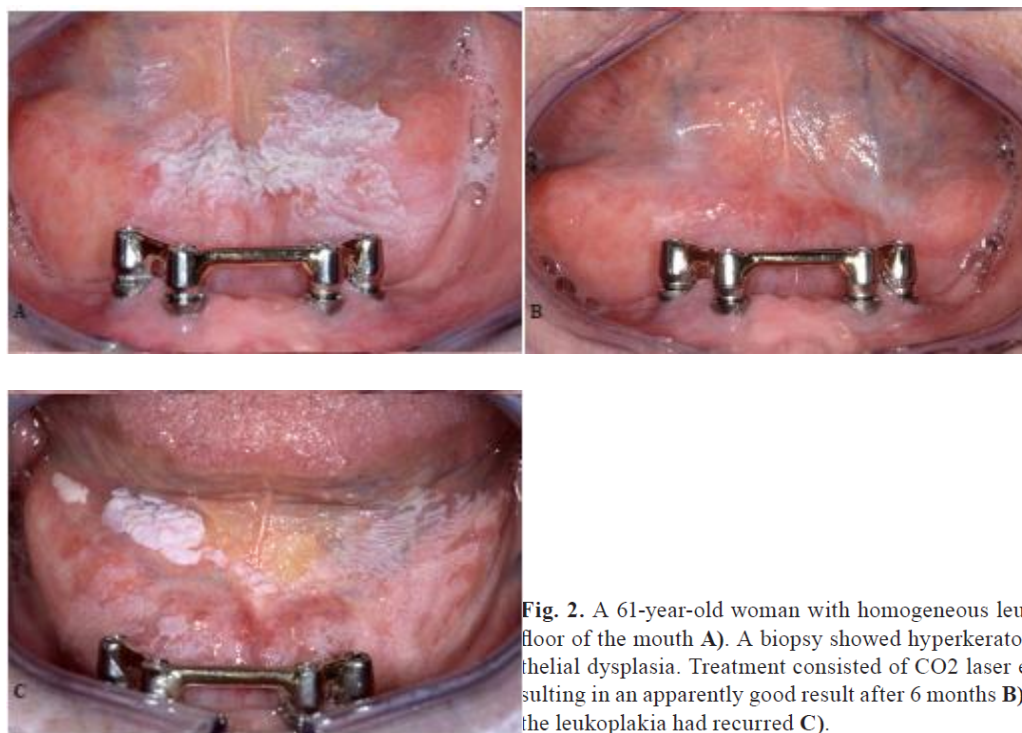


Fig. 2. A 61-year-old woman with homogeneous leukoplakia in the floor of the mouth **A**). A biopsy showed hyperkeratosis without epithelial dysplasia. Treatment consisted of CO2 laser evaporation, resulting in an apparently good result after 6 months **B**). Six years later the leukoplakia had recurred **C**).



Fig. 3. A 63-year-old man with verrucous leukoplakia of the buccal mucosa A). The leukoplakia recurred within three weeks after surgical removal B).

1.3- Patients' management

In case of non-treatment, most patients prefer to be followed-up, in spite of the questionable efficacy of such follow-up. Depending on various aspects, such as the extent of the leukoplakia and the presence and degree of epithelial dysplasia, intervals may vary from 3-6 months, lifelong. Changes in the clinical manifestation and, particularly, symptoms are ominous signs of malignant transformation.

2. Oral lichen planus

The prevalence of oral lichen planus is in general accepted to be approximately 1 per cent. This chronic disorder mainly affects middle-aged people. The etiopathogenesis is still poorly understood. There is no effective treatment and there are no preventive measures either.

In a seven-year follow-up study of 327 patients the annual malignant transformation rate amounted less than 0.5%. An important obstacle in the discussion on the possible potentially malignant character of oral lichen planus is caused by the lack of clear clinical and histopathologic diagnostic criteria of oral lichen planus.

2.2- Follow-up programs

The efficacy of continuous, lifelong follow-up of patients with oral lichen planus is questionable, (although structured follow-up visits have been suggested to be beneficial in some studies .

2.3- Patients' management

In daily practice it may be difficult to manage patients with oral lichen planus with regard to the debatable issue of premalignancy, even when the annual malignant transformation is set at a percentage of less than 0.5 per cent. There is no effective treatment for lichen planus, there are no known predictive factors of malignant transformation, it is not possible to prevent future cancer development and the efficacy of follow-up is at least questionable. The general advice in these circumstances is to perform an oral examination at least once a year, preferably twice a year.

Conclusion

At present, there is a tendency to accept that oral lichen planus is a potentially malignant disorder, the annual malignant transformation rate amounting less than 0.5%.

In case of lichen planus follow-up at 6-12 months, lifelong, seems a reasonable advise.

As in leukoplakia, there are no reliable predicting factors of malignant transformation that can be used in an individual patient and such event can not truly be prevented either.

Follow-up visits, e.g twice a year, may be of some value.

Particularly in case of oral leukoplakia most dentists will probably feel the need to refer the patient to a specialist for diagnostic reasons and, even more so, for determining the management policy.

題號	題目
1	下列口腔之白色變化，何者非癌前病變(precancerous lesion)? (A)Linea alba (B)Proliferation verrucous leukoplakia (C)Oral leukoplakia (D)actinic cheilosis
答案 (A)	出處：Oral and Maxillofacial Pathology P285
題號	題目
2	There are numerous reported parameters that allegedly predict future malignant transformation of oral leukoplakia, which one is false? (A) Previously diagnosed cancer in the head and neck region (B) Older age (C) male gender (D) Absence of smoking habits
答案 (C)	出處：Journal reading “Oral potentially malignant disorders: Is malignant transformation predictable and preventable?”