

Smoking cessation intervention in patients submitted to a Laser treatment of oral leukoplakia

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INTRODUCTION

- Oral leukoplakia (OL) is defined by the World Health Organization (WHO) as “a white plaque of questionable risk having excluded (other) known diseases or disorders that carry no increased risk for cancer”
- The major etiologic factor is tobacco consumption, although in some cases could be ideopathic.
- The reported malignant cumulative transformation rates of OL range between 0.1 to 36.4%. Taking in account the potential malignancy of OL, the elimination of this condition is advisable as an attempt to avoid malignant transformation being laser excision one of the most used option.
- It has been shown that tobacco consumption after OL treatment has led to a higher recurrence or malignant transformation rates.
- These patients should carry out a efficient smoking cessation advice
- we suggest the use of the European program on smoking cessation advice for health care professionals (<http://smokingcessationtraining.com/en/home/>) to help dentists to promote an efficient tobacco cessation.
- Smoking is one of the leading preventable causes of premature death and preventable disease.

CASE REPORT

- 54-year-old man with an OL of the floor of the mouth/ventral surface of the tongue .

- Smoking habits (40 cigarettes per day) and difficulties in stopping smoking.

- Diagnosis: oral leukoplakia (C3)

- Treatment: laser treatment (vaporization) of the lesion and using the guidelines of Tobacco cessation program we accomplish to help the patient to stop smoking.

- Follow up: after 6 months, the patient is free of recurrence and since the diagnosis is an ex-smoker

Laser parameters

- Vaporization technique
- CO₂ laser (wavelength of 10600nm (DEKA® Smart US 20D, Firenze, Italy) was used with angulated mirror handpiece, defocalized and continues mode, 2-mm spot, with a power of 5W (power density of 159.2W/cm² and fluence of 159.2 J/cm²);



Fig 1 Initial appearance of leukoplakia



Fig 2 Application of toluidine blue on the ventral floor of the mouth/ventral surface of the tongue prior to incisional biopsy



Fig 3 Removal of leukoplakia with the laser CO₂



Fig 4 Appearance after removal of leukoplakia



Fig 5 Appearance after 6 months

Discussion and Conclusion

- Almost 29% of European population is a smoker
- Tobacco is a recognizable product with carcinogenic effects namely on oral cavity. Risks are not always fully understood by smokers.
- We suggest using the presence of a potentially malignant disorder to awaken the patient's awareness of problems caused by tobacco
- A treatment plan that includes laser could be a motivation and an optimal time to make an intervention on tobacco cessation.
- The European program on smoking cessation advice (<http://smokingcessationtraining.com/en/home/>) is a platform that helps healthcare professionals in the smoking cessation advice.
- As observed in the presented case a efficient smoking cessation intervention should be performed as a additional treatment in patients submitted to laser treatment of OL.
- Dental doctors (GDP) could have a major role in using the presence of a potential malignant disorder as an awareness of the problems caused by tobacco.

Smoking Cessation Advice
Healthcare professional training

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