

Speckled Leukoplakia : A Case Report

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Abstract

To a great extent oral tumors are preceded by potentially malignant lesions, which may appear as white or red patches on the oral mucosa. Leukoplakia is one of the most common epithelial precursors of oral squamous cell carcinoma. Speckled leukoplakia is an uncommon sort of leukoplakia with a very high risk of premalignant growth and mortality rate. Approximately 3 % of the worldwide population has suffered from leukoplakia, 5-25% of which tend to be malignant leukoplakia. Despite the fact that it is the common precancerous lesion, it represents a major diagnostic and therapeutic challenge. This case report was aimed to discuss early detection of speckled leukoplakia as one of the potentially malignant disorders.

Keywords: Speckled Leukoplakia, Red & White lesion, Cigarette smoking, Precancerous Lesions

Introduction

The word "leukoplakia" literally means a white patch. Throughout the years, there has been a lot of confusion regarding the usage of this term, as there are numerous specific oral white lesions that must have been referred to as leukoplakia. WHO Collaborative Reference Centre for Oral Precancerous Lesion defined leukoplakia as "A white patch, after clinical and laboratory investigations, cannot be placed into any known category".¹ According to this definition, a lesion should only be termed leukoplakia if it appears white in color and cannot be recognized as belonging to any known entities like lichen planus, candidiasis, stomatitis nicotina and the rest. It is, therefore, a diagnosis of exclusion.

Oral leukoplakia is characterized by adherent white plaques or patches on the mucous membranes of the oral cavity, including the tongue.^{2,3} The World Health Organization (WHO) currently employs the term Speckled Leukoplakia (SL) to describe the presence of both white and red patches on the oral mucosa.^{4,5} SL is a rare, highly aggressive, clinicopathological entity, with high-risk of malignant transformation and a precursor lesion of squamous cell carcinoma.^{3,4} Pindborg et al⁶ showed that 64 percent of oral carcinomas in his study arose from speckled leukoplakia. Banoczy⁷ showed that 26 percent of carcinomas developed in speckled leukoplakia, whilst only 2 percent carcinomas developed from the other type of leukoplakia. Although the prevalence of SL in India is low, it presents histopathological features ranging from epithelial dysplasia to invasive carcinoma. This justifies placing these lesions among the oral lesions with the highest malignant potential.

Case Report

A 38-year-old male patient reported to the Department of Oral Medicine and Radiology, with the complaints of missing tooth in the upper front tooth region of the jaw for last 12 years and burning sensation in mouth while taking hot and spicy foodstuffs for last 4 months. The patient had a habit of cigarette smoking, 8 - 10 per day for a period of 15 years and presently patient had reduced smoking to 5 per day. The patient had also the habit of chewing pan, 4-5 per day for last

7 years.

Intraoral examination of right and left buccal mucosa reveals poorly defined red and white lesions extending from the commissural region to the retromolar area of size 6 x 3 cm (Fig. 1,2). Irregularly shaped erythematous zones lie around the lesion. The lesion was non-scrapable non-tender rough surface texture and leathery in consistency. On examination of the palate, the palatal mucosa was affected by poorly defined greyish lesion extending from center of the palate to soft palate of size 4 x 6 cm (Fig. 3). The lesion was non-scrapable non-tender non indurated smooth and firm in consistency with red pinpoint areas. On examination of hard tissues patient had poor oral hygiene stains on his teeth, grade 1 mobility irt 31 32 41 and grade 2 mobility irt 48. The patient was advised for incisional biopsy. The overall clinical and histopathological findings were considered diagnostic for SL with mild dysplasia, smoker's melanosis, Kennedy's class III and chronic generalized periodontitis. Based on diagnosis patient was given topical steroid anti-inflammatory drugs (triamcinolone acetonide 0.1%), topical antifungal drug (clotrimazole 1%) three times a day, applied on the lesion and antioxidant capsules once a day for 1 month and advised to quit the habits. The patient was also advised to avoid the consumption of spicy food, and come back after 1 month. After the 1-month patient was reviewed, the signs and symptoms were found to be subsided (Fig. 4,5,6). The patient was instructed to take the previous medication for 1 more month and refer to the Dept. of Periodontics for supra and subgingival scaling, Dept. of Oral surgery for extraction of tooth irt 48 and Dept. of Prosthodontics for the restoration of missing tooth.

Discussion

WHO defines leukoplakia as a whitish patch or plaque that cannot be characterized, clinically or pathologically, as any other disease and which is not associated with any other physical or chemical causative agent except the use of tobacco.⁸ Various designations have been utilized to describe the presence of both white and red patches. Lesions appearing completely red are named as Erythroplakia. SL is indicated

when red and white patches are present over the mucosa.^{3,4} WHO currently recommends the term SL to describe mouth lesions that present red and white components; hence this term is used in the present case report.⁵ Men are more commonly affected and the mean age at the time of diagnosis is slightly over 60 years. The above case demonstrates the precancerous potential of speckled leukoplakia. Whenever experienced, the lesion must be viewed with suspicion, and a biopsy must be carried out as soon as possible, so that a definitive diagnosis may be arrived at and proper treatment instituted. With leukoplakia, observation of the lesion alone without biopsy must be discouraged and deprecated. This is more so, as examination and biopsy-taking can be performed in the oral cavity with relative ease; an early diagnosis is mandatory for good management.

A lesion may be regarded as malignant when one or more of the following signs are present: ulceration, induration, elevation, fungation and fixation. These are perhaps the remarkable feature that distinguishes the stable speckled leukoplakia from the one that is undergoing transformation into malignancy.⁸ It has been stated that speckled leukoplakia is frequently associated with candida albicans.^{6,9,10} Our case showed the presence of candidal hyphae, the role of which is not very certain at the moment. It is believed that candida may cause leukoplakia, however there is little evidence to suggest that it can cause carcinomatous transformation in an existing leukoplakia. As these organisms can thrive well in altered tissue such as those found in leukoplakia, its presence may merely indicate a secondary infection.¹¹ Speckled leukoplakia is best managed according to the degree of dysplastic changes of the associated epithelium. Pindborg suggested that in severe epithelial dysplasia, surgical removal of the lesion is indicated possibly with skin grafting.⁶ The patient with mild to moderate dysplasia should be kept under strict observation and must be seen every 3-4 months. The above set of rules may not be as satisfactory as it seems, as carcinomatous changes in leukoplakia are known to have occurred in leukoplakias which showed no epithelial dysplasia.

Kumar, et al.: Speckled Leukoplakia : A Case Report

Poswillo¹² advocated the use of cryosurgery but Sakoet² found a recurrence rate of 20 percent in his leukoplakia patients treated by cryosurgery. The use of high dosages of Vitamin A is not recommended as there is a high recurrence rate after withdrawal together with toxic side effect in the form of extreme hypertension that may lead to cerebrovascular accident^{2,13}. The oral speckled leukoplakia is certainly a precancerous lesion. Its initial recognition is most desirable. The management of such a lesion does not fall within the field of the general practitioner, but nevertheless when encountering it, it is his duty to refer the patient to a specialist at the earliest possible time.

Conclusion

Dental Surgeon, Dermatologists, ENT specialists, or Physicians may experience asymptomatic initial and progressive lesions of

leukoplakia on routine clinical examination. Patients with SL are benefitted if we have the earliest possible diagnosis and treatment, thus improving their prognosis. All the patients with a recurrent white lesion require vigorous follow-up and have to be treated with an aggressive approach.

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Fig.1



Fig.2



Fig.3



Fig.4



Fig.5



Fig.6