Original Article

CASE REPORT
CANDIDAL LEUKOPLAKIA: AN UNUSAL FINDING

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Abstract

Leukoplakia of the oral cavity, is one the most common potentially malignant disorder can that becomes life-threatening if not diagnosed early. Various literature has been discussed about the predisposing factor of Candida in leukoplakia. Oral leukoplakia can turn into a potentially fatal condition, and the fungus Candida albicans invasion has been associated to particular clinical traits such as tissue damage, lesion size, location in the mouth cavity, dysplastic changes, and cigarette usage. To manage this problem, a number of therapeutic approaches have been used, such as antioxidant therapy, carotene supplements, and antifungal medications. The purpose of this paper is to describe a case of Oral Leukoplakia that was complicated by Oral Candidiasis.

Keywords: Candidal leukoplakia, Oral leukoplakia, Dysplasia, Clinicopathologic feature Potentially Malignant Disorder.

INTRODUCTION

Oral leukoplakia is defined as "a white plaque of questionable risk having excluded (other) known diseases or disorders that carry no increased risk for cancer," which is the best-known potentially malignant lesion of the oral mucosa[1] Several studies revealed that between 15.8 and 48.0% of patients with oral squamous cell carcinoma (OSCC) had OL.[2] It has been proposed that a major risk factor for oral leukoplakia's malignant transformation is candida invasion. Thus, this case report was focused to evaluate the candidal infection in a patient with oral leukoplakia by assessing the clinicopathologic report.

CASE DESCRIPTION

A 52-year-old male patient reported to our department with a chief complaint of whitish patch in the mouth for 4 months. These patches were noticed by the patient while cleaning his mouth and having food or taking tea as he is having history of burning sensation associated with it. On taking the personal history of patient, history of chewing tobacco from last 10 years, 5 times /day was reported by the patient. His medical history revealed that patient was diabetic and was under medication since last 8 years. On extraoral examination, no significant abnormalities were detected (Fig.1). On intraoral examination, Upper and lower labial mucosa showed white plaque type patch(fig.2) with another well-defined plaque-type patch seen on bilateral buccal mucosa measuring about 3 × 4 cm in size, extending from the commissural area bilaterally posterior to the retromolar area anteroposterior, superior-inferiorly upper vestibule to lower vestibular margin, the upper and lower labial mucosa shows areas of erythematic white patches, borders were well-defined with surrounding erythematous mucosa.(fig. 3) Overall Lesion appears a "crack mud" appearance. On palpation, lesion was non-scrapable non-tender, with no signs of indurations. Another area of whitish patches was present on the upper and lower alveolus region including the hard palate. The lesion was sent for histopathological examination, where it was reported hyperparakeratinization with various degrees of a chronic inflammatory cell infiltrate seen in the lamina propria; the para keratinization in the surface epithelium also candidal hyphae were seen invading the epithelium at right angles to the surface, with the collections of polymorphonuclear leukocytes forming microabscesses (fig.4,5) So this article describes the case of a leukoplakia that got superadded with candida infection.

Fig. 1 front profile of the patient

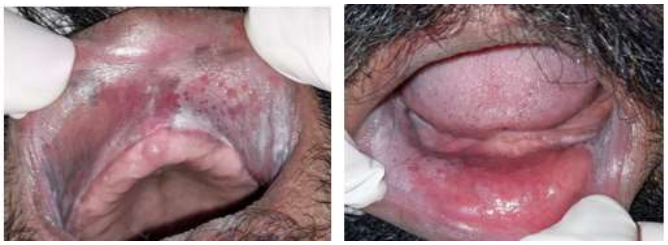

Fig. 2 Upper and lower labial mucosa showing white plaque type patch

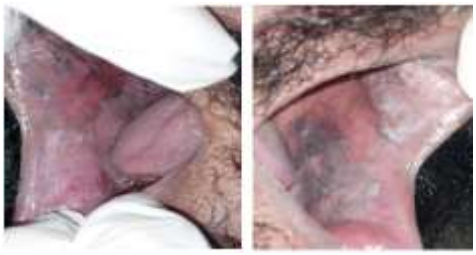

Fig. 3 Right and left buccal mucosa showing greyish white plaque-type patch extending from commissural area bilaterally posterior to the retromolar region

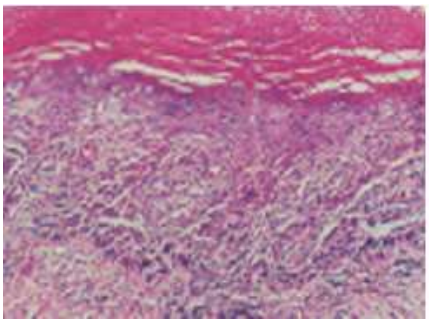

Fig. 4

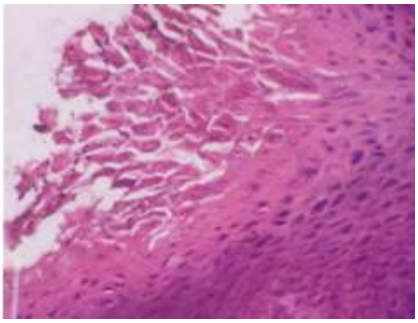

Fig. 5

Fig. 4 and 5 showing hyperparakeratinization with various degrees of a chronic inflammatory cell infiltrate seen in the lamina propria with fungal hyphae

DISCUSSION

Leukoplakia is a greek word- Leucos means white and Plakia means patch. It was first coined in the second half of the 19th century by the Hungarian dermatologist, Schwimmer in 1877. Oral leukoplakia is the most common disease among precancerous lesions which is predominantly white lesion of the oral mucosa that cannot be characterized as any other definable lesion; some oral leucoplakias will transform into cancer.[3]

Multiple etiological factors are there which are associated with the development of oral leukoplakia including the habit of tobacco chewing, cigarette smoking, and alcohol consumption.[4] Also, it was noted in the year 1972 by the authors Roed-Petersen and Daftary that Candida infection had a vital etiological role Yet when the percentile value of Candida infection was evaluated, it was shown that 13.5% of the entire OL group had it.

Candida albicans has been reported frequently in conjunction with leukoplakia, most commonly of the nodular variety. Other local variables, like as tobacco use, denture wear, or occlusal friction, may be related with candidal leukoplakia. Cigarette smoking may cause candidal colonization due to increased keratinization, decreased salivary IgA content, or impaired PMNL function. There has long been debate over whether candida infection is the source of leukoplakia or if it is a superimposed infection in an already existing disease. It has also been demonstrated that when non-homogeneous candida-infected leukoplakia is treated, it transforms into a homogeneous lesion, and some lesions even regress.[5,6]

The histological dysplasias have also been evaluated because Candida is thought to have a significant impact on the condition, as was also observed in the literature. In our case also, histopathological evaluation reported the same findings[7] fig.(4,5) where leukoplakia was associated with candidal infection. The lesions associated with candidal leukoplakia on initial inspector findings revealed discrete elevations, and large whitish, dense, opaque plaques, on palpation, it is hard to rough in consistency[8] and these features were found to be inconsistent with the findings in our case (fig.2,3) In a study done by Lan Wu DDS et al, average age for diagnosis of candidal leukoplakia was found to be in elderly patient (N60) years as compared to general leukoplakia, than in the nonelderly patient, which was in consistent with the findings from our case report where the age of patient fall in the elderly group of fifth decade.[9]

In order to summarise this report, we talked about a case that exemplifies the characteristics of a typical instance of oral candidal leukoplakia in a patient with epithelial dysplasia and the existence of candidal hyphae due to the presence of super added candidal infection. Antifungal therapy was then advised as the patient's regular course of treatment.

CONCLUSION

Thus early detection of oral leukoplakia is required to diagnose any related lesions as the malignant potential of leukoplakia is significant, examining and diagnosing the lesion clinically without a biopsy should be avoided. Especially when it is associated with candida like lesions an essential golden rule of taking a biopsy is required for a definitive diagnosis and adequate therapy planning.

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