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Recurrent leukoplakia in oral cavity: A case report

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Abstract
White oral lesions are relatively found frequently, the most common pathology found is oral leukoplakia. Oral leukoplakia is one of the Potential form of malignant oral disorder. The gold standard treatment procedure is surgical removal but despite of the surgical removal reoccurrence rate is found to be high. One of its variant is verrucous form which have high reoccurrence rate along with exophytic and proliferative features. Poor prognosis is there of this seemingly harmless white lesion .This report describes about one of the stubborn case of oral leukoplakia demonstrating typical behavioral pattern in long standing as well as persistent lesions with discussion of relatively rare entity.

Keywords: oral leukoplakia, white lesion, rare entity, reocurrence

Introduction

White lesions are found frequently in the oral cavity showing prevalence of 24.8% approx. [1] Most prevalent among them is oral leukoplakia (0.2-3.6 %) [1] It can be defined as continnum of oral epithelial disease showing hyperkeratosis at one end and verrucous form at the other end. [2]

It is one of the long term condition, which develop as a white patch initially that grows eventually as a multifocal disease with exophytic as well as proliferative features. The gingiva and palatal area represent as the areas with the highest frequency of these multiple malignant lesion and its occurrence [1].

It is much more aggressive and restless as compared to other innocuous white lesions that resembles clinically [3]. This case report of ours emphasize on the treatment aspect of oral leukoplakia thus to further prevent its malignant progression.

Case report

A female patient 58 years came to our clinic with chief complaint of whitish area in upper front and back tooth region since past 15 years which keeps on reoccurring. Upon eliciting her personal history patient had no habits or underlying medical condition. Patient gave history of reoccurrence even after its removal for four times. Upon inspection of the lesion intraorally it showed an irregular growth of mass above maxillary incisors extending to the vestibule with white sluggish deposition. (Figure 1).

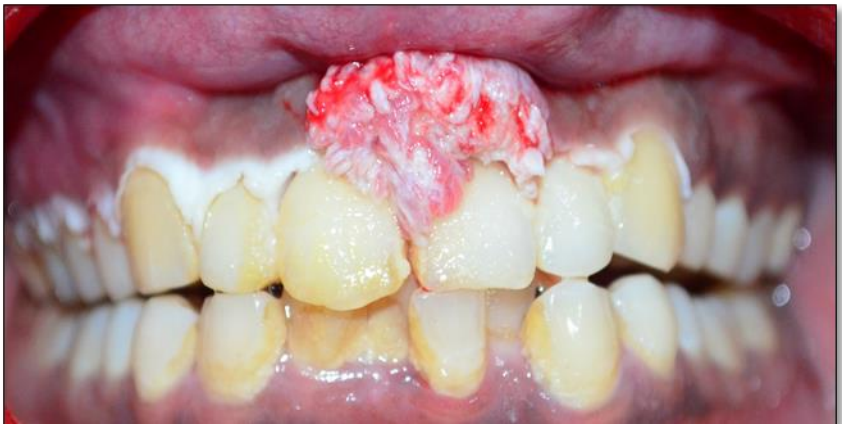

Fig 1: Irregular growth of mass with white sluggish deposition)

The lesion presented with well-defined boundaries of it and raised surface. The lesion surface was found to be wrinkled and rough. It was non scrappable which was also extending Palatally. (Figure 2)

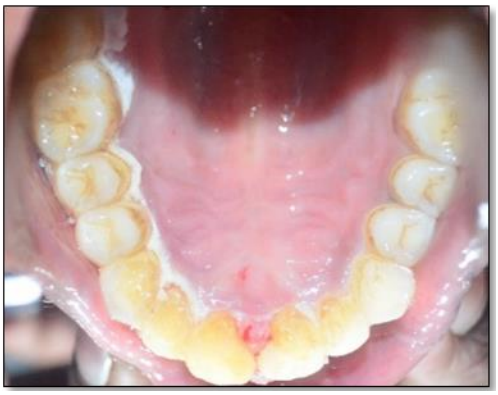

Fig 2: Palatal white deposition

Upon palpatation of the lesion, all inspectory findings were found to be confirmed with respect to size, extent as well as shape of the lesion.

Treatment and follow up

Multiple time biopsies were made and every time it was found to be leukoplakia only. Based upon its history as well as clinical examination a provisional diagnosis of leukoplakia was made, but this time laser treatment was done to remove it with 1 month follow up. (Figure. 3 a, b)

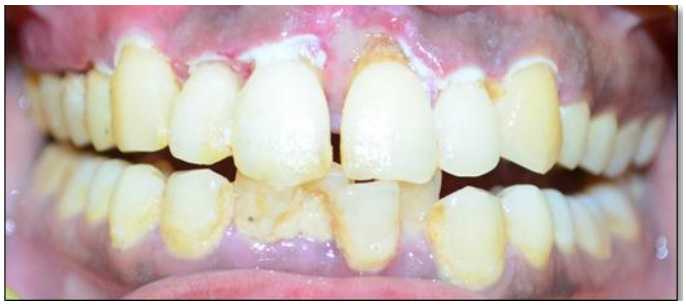

Fig 3a: Laser removal of the lesion

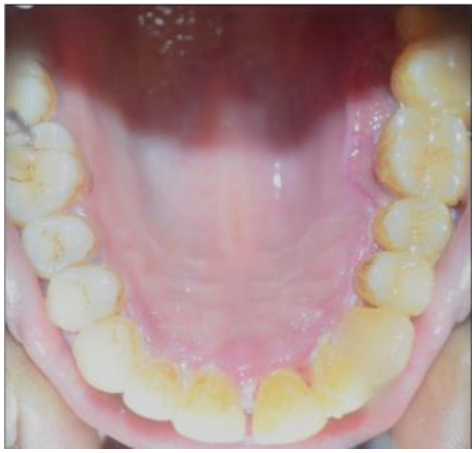

Fig 3b: Palatal view of lesion after laser treatment

On timely follow up patient responded well to the treatment. (Figure.4)

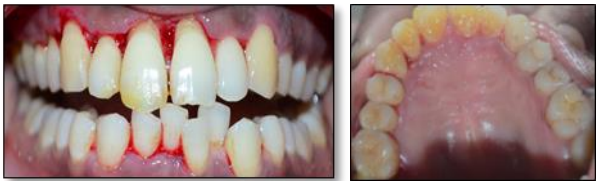

Fig 4: One month follow up after laser treatment)

The tissue excised was then sent for histopathological reevaluation which confirmed it as leukoplakia.

Discussion

Oral leukoplakia is one of the most common oral potentially malignant disorder found in the oral cavity. In year 1997, WHO defined it as a 'predominantly white lesion, that cannot be characterized as any other definable lesion.' Alcohol consumption with tobacco has synergystic effect which is thought to be causative factor of oral leukoplakia. [4]

Etiopathogenesis

Many etiologies has been proposed till now but very less among them were proved about the origin of the process of this disease. [5] Tobacco is found to be absent frequently as a known risk factor as oral proliferative leukoplakia is being found both in smokers as well as non-smokers. [1]

Oral leukoplakia etiology is believed to be as one of the casual link between prolonged mechanical trauma, HPV(16 and 18),EBV, herpes simplex, HIV and decreased serum Beta carotene and vitamin A.[6, 7]

In our present case patient was non-smoker nor had any other habit.

Clinical features

There is high predilection of oral proliferative verrucous leukoplakia in women who are elderly with the ratio of approx 4:1 women: men. [8] In our case it is found in women.

Histopathology

Oral leukoplakia is classified as homogenous and non-homogenous subtypes based on the macroscopic features. [4, 6] It shows hyperkeratosis, acanthosis, atrophy and may also show degrees of dysplasia as well. High risk of malignant transformation is found to be associated with presence of dysplastic features in histological examination [9].

Diagnosis

Oral proliferative verrucous leukoplakia is being diagnosed based upon clinical and histopathological evidence of progression. [10] Following are the major and minor criteria established by cerreo-Lapidra *et al* [1]

Major criteria

a. Oral leukoplakia in two different sites ,found frequently in gingival, alveolar process as well as palate.
b. Presence of verrucous area
c. Lesion has spread

d. Reoccurring in previously treated area
e. Simple epithelial hyperkeratosis in histopathology

Minor criteria
a. Lesion occupies minimum 3cm of area
b. Female gender patient
c. Non-smoker
d. Evolution of disease is more than 5 years

For diagnosis proliferative leukoplakia
1. 3 major
2. 2 major + 2 minor criteria

Though, presently there is no criteria that helps in early diagnosis. [11]. In our case we had presence of verrucous area, reoccurrence, female patient, non-smoker as well as evaluation of disease since 15 years.

Treatment and follow up
Multiple treatment modalities has been documented such as carbon di oxide laser, radiation, topical bleomycin, oral retinoids, beta carotene and systemic chemotherapy but most of them had failed in attaining permanent cure. [6]
Laser ablation has been reported to be successful in small group of patients if followed for 6 to 178 months. Topical photodynamic therapy also found to be useful with low morbidity and treatment of multiple therapies over the disease progression may be needed [12].
In our case we did laser removal treatment with timely follow up as it was a persistent lesion and had high reoccurrence rate every time when removed surgically.

Conclusion
One of the aggressive form of leukoplakia is oral proliferative Verrucous leukoplakia, for this awareness and knowledge is required by the clinician. Therefore, earliest possible diagnosis as well as total excision of the lesion is recommended. With our case we presented with typical rare clinical features with high reoccurrence of oral leukoplakia, so as to sensitize the oral physicians. Utmost care should be taken in follow up of such cases for longer duration even after the surgical or laser management due to its higher chance of reoccurrence and malignant transformation.

Reference

1. Cerero-Lapiedra R, Baladé-Martínez D, Moreno-López LA, Esparza-Gómez G, Bagán JV. Proliferative verrucous leukoplakia: A proposal for diagnostic criteria. Med Oral Patol Oral Cir Bucal [PubMed] [Google Scholar],2010:15:e839-45.
2. Greer RO, McDowell JD, Hoernig G. Proliferative verrucous leukoplakia: Report of two cases and a discussion of clinicopathology. J Calif Dent Assoc [PubMed] [Google Scholar],1999:27:300-5.
3. Cabay RJ, Morton TH, Jr, Epstein JB. Proliferative verrucous leukoplakia and its progression to oral carcinoma: A review of the literature. J Oral Pathol Med,2007:36:255-61. [PubMed] [Google Scholar]
4. Kayalvizhi EB, Lakshman VL, Sitra G, Yoga S, Kanmani R, Megalai N. Oral leukoplakia: A review and its update.J Med Radiol Pathol Surg,2016:2:18-22.
5. Shewale VN, Shewale K. Proliferative verrucous leukoplakia: Benignly progressing towards malignancy. Asian J Oral Health Allied Sci,2011:1:71-3. [Google Scholar]
6. Deliverska EG, Petkova M. Management of oral leukoplakia – Analysis of the literature. IMAB,2017:23:1495-504.
7. Nair SN, Holla V, Kini R, Rao PK. Bilateral speckled leukoplakia: A case report. Austin J Dent,2017:4:1-2
8. Kresty LA, Mallery SR, Knobloch TJ, Li J, Lloyd M, Casto BC, *et al*. Frequent alterations of p16INK4a and p14ARF in oral proliferative verrucous leukoplakia. Cancer Epidemiol Biomarkers Prev [PubMed] [Google Scholar],2008:17:3179-87.
9. Kumar A, Cascarini L, McCaul JA, Kerawala CJ, Coombes D, Godden D, *et al*. How should we manage oral leukoplakia? Br J Oral maxillofac Surg,2013:51:377-83.
10. Mete O, Keskin Y, Hafiz G, Kayhan KB, Unur M. Oral proliferative verrucous leukoplakia: Underdiagnosed oral precursor lesion that requires retrospective clinicopathological correlation. Dermatol Online J [PubMed] [Google Scholar],2010:16:6.
11. Gandolfo S, Castellani R, Pentenero M. Proliferative verrucous leukoplakia: A potentially malignant disorder involving periodontal sites. J Periodontol,2009:80:274-81. [PubMed] [Google Scholar]
12. Azfar RS, Elston DM. Proliferative Verrucous Leukoplakia. Medscape Reference-Drugs, Diseases and Procedures [Google Scholar], 2012.