



Received: 17-10-2022

Accepted: 27-11-2022

International Journal of Advanced Multidisciplinary Research and Studies

ISSN: 2583-049X

Speckled leukoplakia with Oral submucous Fibrosis: A Concomitant Association

¹ Geetha Thantri, ² Kshma Rao, ³ Dhanya S Rao, ⁴ Raghavendra Kini

¹ Intern, Department of Oral Medicine & Radiology, A.J Institute of Dental Sciences, Kuntikana, Mangaluru 575004, Karnataka, India

² Postgraduate Student, Department of Oral Medicine & Radiology, A.J Institute of Dental Sciences, Kuntikana, Mangaluru 575004, Karnataka, India

³ Assistant Professor, Department of Oral Medicine & Radiology, A.J Institute of Dental Sciences, Kuntikana, Mangaluru 575004, Karnataka, India

⁴ Professor and Head, Department of Oral Medicine & Radiology, A.J Institute of Dental Sciences, Kuntikana, Mangaluru 575004, Karnataka, India

Corresponding Author: **Geetha Thantri**

Abstract

Speckled leukoplakia is a potentially malignant lesion that has a high potential for malignant transformation. Oral submucous fibrosis (OSMF) is a chronic insidious disease affecting the oral mucosa and pharynx. Timely diagnosis is

required to prevent its malignant transformation. Proper understanding, recognizing and differentiating from the normal mucosa is necessary for proper treatment of the lesion.

Keywords: Leukoplakia, White, Tongue, Buccal Mucosa, OSMF

1. Introduction

Lesions are named erythroleukoplakia, leukoerythroplakia or speckled leukoplakia when both red and white areas are associated with a lesion. ^[1, 2, 3] The etiology may be related to tobacco chewing, alcohol, sharp tooth, nutritional deficiency, drugs, viruses, and idiopathy. ^[4] OSMF is associated with juxta epithelial inflammatory reaction followed by fibroelastic changes along with epithelial atrophy leading to trismus and difficult mouth opening. ^[5] It is commonly seen due to the increased use of commercially prepared areca nut and tobacco products- gutka, pan masala etc. ^[4] Here we report a case of speckled leukoplakia of the tongue and left buccal mucosa associated with OSMF.



Fig 1: Blanching noted on right as well as left buccal mucosa with white cracked mud patch intermixed with erythematous area on the left buccal mucosa surrounded with diffuse blackish brown pigmentation



Fig 2: White cracked mud patch intermixed with an erythematous area noted on the left dorsal and ventral surface of the tongue measuring 4*5 cm approximately

2. Case report

A 45-year-old male reported to the department of Oral Medicine and Radiology with the chief complaint of sensitivity in the lower and upper right back tooth region for a week which aggravated on having hot and cold food and relieved on its own. A burning sensation of the mouth was reported by the patient for which a Visual Analog Scale (VAS) score of 2 was given. The patient was a known case of type 2 diabetes mellitus and was under medication for the same. He gave a history of cigarette smoking 1 pack per day and alcohol consumption 2-3 times per day for 15 years, also gutka chewing 3-4 times a day for 6 years which he had quit 10 years back.

Hard tissue examination revealed poor oral hygiene with generalized class II gingival recession. Local examination of the lesion showed a white cracked mud patch intermixed with an erythematous area on the left dorsal, ventral surface of the tongue measuring 4*5 cm approximately and is non-scrapable on palpation. A similar patch was also noted on the left buccal mucosa surrounded with diffuse blackish-brown pigmentation. Blanching in the right and left buccal mucosa, the floor of the mouth, labial mucosa along with shrunken uvula was evident. Multiple bands were palpable in right and left buccal mucosa with a mouth opening of 43 mm. Based on habit history, and clinical examination a provisional diagnosis of speckled leukoplakia of left buccal mucosa and tongue associated with Group I OSMF was given. The patient was advised to cessate his habit and Tab SM Fibro twice daily after meals for 30 days was also given. The patient is recalled for a biopsy of the tongue and intralesional therapy for the treatment of OSMF.

3. Discussion

Association of potentially malignant disorders (PMDs) is rare in presentation. Earlier a rare association of speckled leukoplakia, oral lichen planus and OSMF were reported in the journal of scientific dentistry (2021).^[6] An association of oral speckled leukoplakia with OSMF is reported in our case.

According to WHO 2005, leukoplakia is defined as 'A predominantly white patch or plaque that cannot be characterized clinically or pathologically as any other disease.'^[7] The causative factors have been identified as tobacco chewing, alcohol, nutritional deficiency, drugs, virus, and sharp teeth. OSMF is an insidious, chronic, irreversible, progressive, scarring, potentially malignant and collagen metabolic disorder induced by areca nut chewing, and other tobacco products.^[4] This patient had a habit of

cigarette smoking and alcohol consumption for the past 15 years and was a gutka chewer for 6 years.

Malignant potential is highest in speckled leukoplakia.^[1] Some studies show malignant transformation in over 20% of speckled leukoplakia.^[8] Early diagnosis and its management can prevent the transformation. Multiple treatment modalities have been documented for leukoplakia. Including watch and see approach, surgical and non-surgical approaches. Non-surgical approaches include carotenoids, vitamins A, C, and K, photodynamic therapy, and bleomycin. Surgical management comprises conventional surgery, electrocauterization, laser ablation or cryosurgery. Recurrence after surgical treatment is noted in 10-35% of cases.^[9] In our case, the patient has been advised to cessate his habit and recalled for a biopsy of the lesion.

OSMF has a malignant transformation rate of 7-30%. The treatment modality of OSMF depends on the degree of disease progression and clinical involvement. At early stages, stopping the habit and nutritional supplements are done. At moderate stages, conservative treatment such as intralesional injections along with forceful mouth opening and physiotherapy is provided. At advanced stages, surgical interventions are needed.^[10] In our case, the patient was in his early stage of oral submucous fibrosis and hence nutritional supplements were given and recalled for intralesional therapy.

4. Conclusion

Potentially malignant disorders are not painful and usually, they may go unnoticed. Thorough knowledge about the lesion and early detection is necessary for its management to prevent the possibility of malignant transformation. Complete oral soft tissue screening must be a part of every chairside examination.

5. References

1. Elaini Sickert Hosni, Fernanda Goncalves Salum, Karen Cherubini, Liliane Soares yurgel, Maria Antonia Zancanaro Figueiredo. Oral Erythroplakia and Speckled Leukoplakia: retrospective analysis of 13 cases. Brazilian Journal of otorhinolaryngology. 2009; 75(2):295-299.
2. Naman Rao R, Alessandro Villa, Chandramani More B, Ruwan Jayasinghe D, Alexander Ross Kerr, Newell Johnson W. Oral submucous fibrosis: a contemporary narrative review with a proposed inter-professional approach for an early diagnosis and clinical management. J of otolaryngol - head and neck surg.

- 2020; 49(3).
3. Craig RM. Speckled leukoplakia of the floor of the mouth. *J Am Dent Assoc.* 1981; 102(5):690-692. [PubMed] [Google Scholar]
 4. Anil Govindrao Goms, Savita Anil Ghom. *Textbook Of Oral Medicine.* New Delhi, India. Jaypee brothers medical publishers. 2010; 2:196-203.
 5. Pindborg JJ. Oral submucous fibrosis as a precancerous condition. *J Dent Res.* 1966; 45:546-553.
 6. Akshaya Thiruvalluvan, Jagat Reddy. Coexistence of multiple potentially malignant disorders; a case report. *Journal of scientific dentistry.* 2001; 11(1).
 7. Warnakulasuriya S, Johnson NW, van der Waal I. Nomenclature and classification of potentially malignant disorders of the oral mucosa. *J Oral Pathol Med.* 2007; 36:575-580.
 8. Neville BW, Damm DD, Allen CM, Bouquot JE. *Oral and Maxillofacial pathology.* 2nd ed. Philadelphia: WB Saunders, 2002, 218-221.
 9. Loanina P, Serban T, Lelia M. Treatment approach of oral leukoplakia. *Review of literature.* 2013; 8:39-43.
 10. Passi D, Bhanot P, Yoshi Panwar. Oral submucous fibrosis: Newer proposed classification with critical updates in pathogenesis and management strategies. *Natl J Maxillofac Surg.* 2017; 8(2):89-94.