

Prevalence of Oral Submucous Fibrosis in patients visiting Maharashtra Institute of Dental Sciences and Research in Latur

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Abstract:

Objectives: The study was conducted to assess the prevalence of OSMF in patients visiting MIDSR Dental College Latur, Maharashtra.

Materials and methods: A cross-sectional study was conducted to assess the prevalence of OSMF in patients attending Oral Medicine department OPD at MIDSR Dental College Latur, Maharashtra in the period from December 2016 to May 2017.

Results: Out of 14439 patients examined, 78 patients were diagnosed with OSMF. A Higher number of OSMF subjects 27 (34.61%) belonged to 25-34 yrs age group, followed by 23 (29.48%) belonged to 15-24 yrs age group. 75 patients (96.15%) with OSMF were males and, three patients (3.84%) were females. Majority of patients with OSMF had H/O tobacco 30 (38.46%), followed by betel nut 30 (38.46%) and gutka 2(.56%). Combinations of habits were seen in 13 patients (16.66%). Our study also encountered 3 patients (3.84%) without any habits.

Conclusion: This study clearly indicates the use of smokeless tobacco, especially tobacco and areca nut are on the rise.

Key words: Oral sub mucous fibrosis, Incidence, Treatment

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INTRODUCTION

ORAL SUBMUCOSAL FIBROSIS is a chronic, premalignant condition of the oral mucosa, which was first described by Schwartz 1952.¹

Pindborg (1966) defined OSMF, an insidious, chronic disease affecting any part of the oral cavity & sometimes the pharynx. Although occasionally preceded by and/or associated with vesicle formation, it is always associated with juxta-epithelial inflammatory reaction followed by fibroelastic change of the lamina propria, with

epithelial atrophy leading to stiffness of the oral mucosa & causing trismus & inability to eat.¹

The rapid increase of disease could be due to an upsurge in commercially available areca nut preparations like gutka, pan masala². Areca nut chewing habit is prevalent in South Asian populations but has been recognized nowadays in Europe and North America³.

Approximately 600 million people chew betel nut with a hot spot through-out the Western Pacific basin

& South Asia. This makes the betel nut the 4th most consumed drug after nicotine, ethanol, and caffeine.³

CLASSIFICATION⁴

By Kerr et. al.(2011) & by Chandramani et. al.(2012)
Kerr etal 2011 proposed grading system for OSMF.

- i. Grade 1 - Mild: Any features of the disease triad for OSF (burning, depapillation, blanching or leathery mucosa) may be reported and Interincisal opening >35mm.
- ii. Grade 2- Moderate: Above features of OSF + inter-incisal limitation of opening 20-35mm.
- iii. Grade 3-Severe: Above features of OSF + interincisal opening <20mm.
- iv. Grade 4A-OSF + other potentially malignant disorder on clinical examination.
- v. Grade 4B- OSF with any grade of oral epithelial dysplasia on biopsy.
- vi. Grade 5-OSF + oral squamous cell carcinoma.

Classification by Chandramani etal suits Indian population and could be utilized to standardize reporting.

CLINICAL STAGING

- i. Stage1 (S1)- Stomatitis and/or blanching of oral mucosa.
- ii. Stage2 (S2)- Presence of palpable fibrous bands in buccal mucosa and/or oropharynx with or without stomatitis.
- iii. Stage3 (S3)-Presence of palpable fibrous bands in buccal mucosa and/or oropharynx, and in any other parts of oral cavity, with or without stomatitis.
- iv. Stage4 (S4) (a) -Any one of the above stage along with other potentially malignant disorders. eg; Oral Lleukoplakia, Oral Erythroplakia,etc.
- v. Stage4(S4)(b) - Any one of the above stage along with oral carcinoma

FUNCTIONAL STAGING

- i. M1- Interincisal mouth opening upto or >35mm
- ii. M2- Interincisal mouth opening between 25mm and 35mm.

- iii. M3- Interincisal mouth opening between 15mm and 25mm.
- iv. M4-Interincisal mouth opening <15mm.

MATERIALS AND METHODS:

A cross-sectional study was conducted in the Department of Oral Medicine and Radiology at Maharashtra Institute of Dental Sciences and Research, Latur to study the prevalence of OSMF in patients attending on OPD basis. The patients were interviewed, and clinical examination performed to diagnose OSMF. Armamentariums used were sterile mouth mirror, explorer, tweezers, gloves and mouth mask.

RESULTS:

A total of 14439 patients were examined for OSMF. 78 patients were diagnosed with OSMF.

Table 1 shows distribution of OSMF patients according to age, higher number of OSMF subjects 27 (34.61%) belonged to 25-34 yrs age group, followed by 23 (29.48%) belonged to 15-24 yrs age group, then by 17 (21.79%) in 35 to 44 yrs age group, 9 (11.53%) in 45 to 54 yrs age group and least was in 55 yrs and above with 2 (2.56%) patients.

Table No. 1: Distribution of OSMF patients according to Age.

Age in Years	OSMF Patients	
	Number	%
15-24	23	29.48%
25-34	27	34.61%
35-44	17	21.79%
45-55	09	11.53%
55 and above	02	2.56%
Total	78	

Table 2 shows the distribution of OSMF patients according to Sex, 75 were males, and 3 were females, accounting for 96.15% and 3.84% respectively.

Table 3 shows the distribution of OSMF patients according to tobacco habits In OSMF patient.

Tobacco was found in 30 (38.46%) patients, betel nut in 30 (38.46%) patients and two patients (2.56%) were gutka chewers. Combinations of habits were found with smokeless and smoking tobacco in 13 patients (16.66%).

Table No. 2: Distribution of OSMF patients according to Sex.

Sex	OSMF Patients	
	Number	%
Male	75	96.15%
Female	03	3.84%

Table No. 3: Distribution of OSMF patients according to tobacco habits

Habits	Subjects	%
Tobacco	32	38.46%
Betal nut	30	38.46%
Gutka	02	2.56%
Betal nut + Tobacco	10	12.82%
Pan + Tobacco+ Betal nut	02	2.56%
Betal nut + Cigarette	01	1.28%
No Habits	03	3.84%

DISCUSSION:

In the present study, higher number of OSMF subjects 27 (34.61%) belonged to 25-34 yrs age group, followed by 23 (29.48%) belonged to 15-24 yrs age group. Study done by Sharma R et al² showed higher number of OSMF subjects 98 (1.44%) and 93 (1.36%) belong to 15 to 24 yrs age and 25-34 yrs age group respectively. The Study conducted by Reddy V et al¹ showed OSMF subjects were high in 20-30 yrs age group followed by 31-40 yrs age group and then by 41-50 yrs age group, similar to our study. The Study was done by Satish Kumar⁶ also showed more prevalence in 20-30 yrs age group, analogous to our study. Whereas study done by Nitin Kumar Nigam

et al⁵ shows that OSMF was common in 36-40 yrs age group of both sexes followed by 21-25 yrs age group.

In our study, out of 78 OSMF patients, 75 were males and 3 were females, accounting for 96.15% and 3.84% respectively. The Study done by Sharma R et al.² showed male prevalence over females with a ratio of 4.3:1. Study done by Reddy V et al¹ also showed male predominance in the ratio of 2.36:1.

In OSMF patients, tobacco was found in 30 (38.46%) patients, betal nut in 30 (38.46%) patients and 2 patients (2.56%) were gutka chewers. Combination of habits was found with smokeless and smoking tobacco in 13 patients (16.66%). Patients with OSMF without any history of any habit contributed to 3.84%. In a study conducted by Nitin Kumar Nigam et al.⁵, 66.66% were gutka chewers, 22.22% were pan chewers, and 11.11% were areca nut chewers. And none of the patients had mixing chewing habits. Sharma R et al.² study showed gutka chewers were higher with 58.44%, whereas our study showed 2.56% users.

CONCLUSION:

This study evidently indicates the use of smokeless tobacco is on the rise. Tobacco awareness program, counselling, motivation to quit the habit is the need of the hour.

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