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PREVALENCE OF ORAL MUCOSAL VARIANTS AMONG NON TOBACCO USERS DENTAL PATIENTS IN NORTH INDIA: AN ORIGINAL RESEARCH

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ABSTRACT

Background: The oral mucosa acts as a protective barrier against pathogens, and carcinoma causing agents. There are several variation of oral mucosa such as Fordyces granules, linea alba, leukoedema and lingual varices. There diagnosis is very important. Often they don't require any treatment. **Objective**: To study the prevalence of oral mucosal variants among non-tobacco users' dental patients in North Indian population. **Methods:** A total of 1000 subjects consisting of 627 males and 373 females were selected. The age of subjects was 11-80 years. All subjects were examined for presence of oral mucosal variants in accordance with the WHO acknowledged coloured atlas, clinical examination and history. **Results**: Prevalence of oral mucosal variants was found to be 10.1%. The maximum no of cases reported were in the age group of 20-40 years. Fordyce's granule was the most common oral mucosal variants. **Conclusion**: Oral mucosal variants are very common and sometimes they resembles as oral mucosal disorders. Proper diagnosis and patient education is necessary.

KEYWORDS: Oral Mucosal Variants; Non-Tobacco Users.

INTRODUCTION

Oral health is important to the quality of life of all individuals. Fordyce granules are referred to as benign sebaceous glands, which are ectopic in distribution and are characterized by the multiple light yellow raise papules, occurring mainly in the lip region, buccal mucosa, ver-million border, and retromolar region[1] (Fig. 2). Caviar tongue (also termed sublingual varicosities or sublingual varices), is a condition characterized by purplish venous ectasias commonly found on the ventral (undersurface) of the tongue after the age of fifty. It is normal for there to be veins visible underneath the tongue, partly because the mucous membrane is so thin and translucent in this region, but where these vessels become dilated and tortuous, they may appear round and black like caviar.[2]

The term is derived from the Greek words leuko-, "white" and oídēma, "swelling". Leukoedema is a blue, grey or white appearance of mucosae, particularly the buccal mucosa (the inside of the cheeks); it may also occur on the mucosa of the larynx or vagina. It is a harmless and very common condition. Because it is so common, it has been argued that it may in fact represent a variation of the normal appearance rather than a disease, but empirical evidence suggests that leukoedema is an acquired condition caused by local irritation[3]. It is found more commonly in black skinned people and tobacco users.

MATERIAL AND METHODS

MATERIALS

1. Instruments used

- Plane mouth mirrors and probe.
- Tongue depressor.
- Cotton swab
- Kidney trays.
- Cotton holders.
- 2x2 inch gauze pieces.
- Disposable gloves.
- Towel.
- Metallic scale.
- Big steel tray.
- Chittel forceps.

2. Additional

- Torch
- Clip board.
- Indible pencils.

INCLUSION CRITERIAS

1. Non-tobacco users were included.
2. Age group more than 11 years and less than 80 years were included.

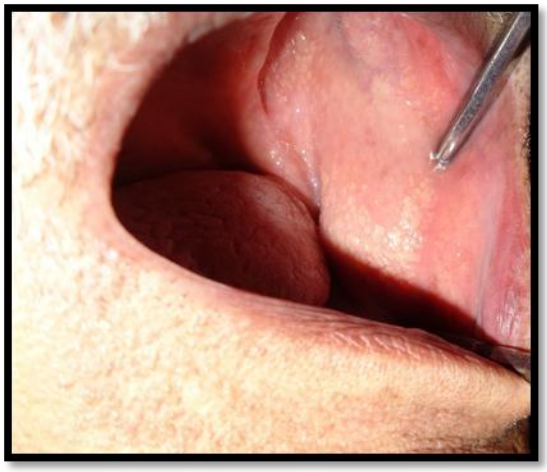
EXCLUSION CRITERIAS

- Patients in whom an intraoral examination was not possible due to inadequate mouth opening were excluded from the study.
- Tobacco users were excluded from the study.

METHODOLOGY

A total of 1,000 non-tobacco users' subjects consisting of 627 males and 373 females were involved in the study after obtaining their written informed consent. The subjects who belonged to age between 11 to 80 years were included in the study. The subjects in which intraoral examination was not possible due to reduced mouth opening were excluded from the study. All subjects were examined for presence of oral mucosal variants. The diagnosis was made on the basis of proper history and clinical examination in accordance with the WHO acknowledged coloured atlas and criteria for different oral mucosal variants. The results achieved were analysed with the help of SPSS (Statistical Package for Social Services) 18.0 version. All results were compared using percentage.

Photograph No. 1: Photograph Showing Armamentarium Used For Clinical Examination.

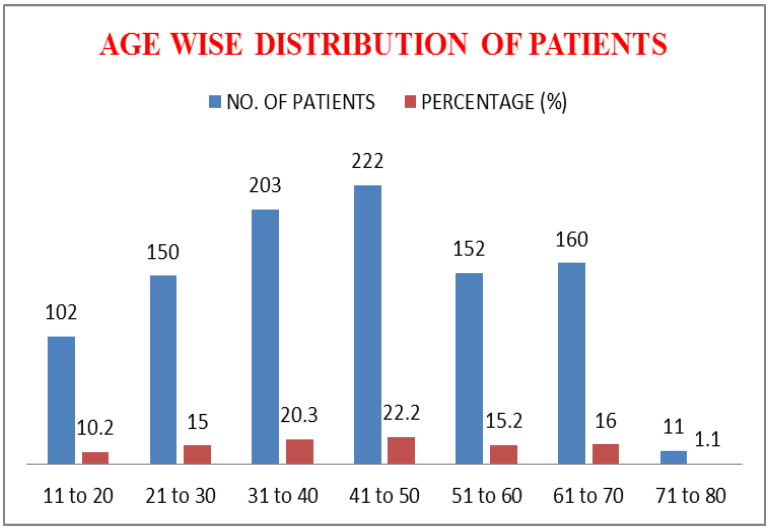


Photograph No. 2: Photograph Showing Fordyce's Granules On The Left Side Of Buccal Mucosa.

Photograph No. 3: Photograph Showing Leukoedema on The Right Side of Buccal Mucosa.

Table 1: Age Wise Distribution of Patients.

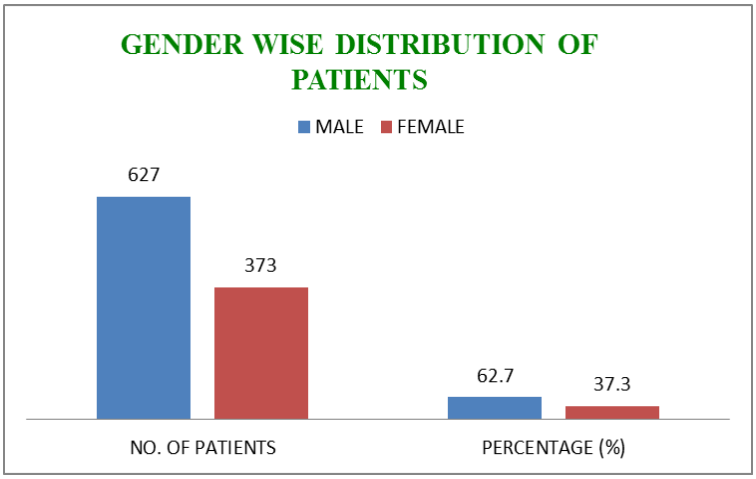
AGE GROUP (YEARS)	NO. OF PATIENTS	PERCENTAGE (%)
11-20	102	10.2
21-30	150	15.0
31-40	203	20.3
41-50	222	22.2
51-60	152	15.2
61-70	160	16.0
71-80	11	1.1
TOTAL NO. OF PATIENTS: 1000 RANGE: 11-80 YEARS		



Graph 1: Age Wise Distribution of Patients.

Table 2: Gender Wise Distribution Of Patients.

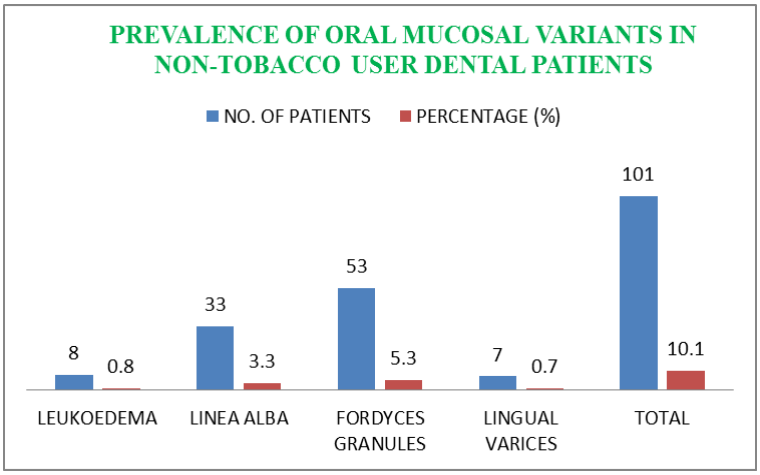
Gender	No. Of patients	Percentage (%)
Male	627	62.7
Female	373	37.3
Total no. Of patients: 1000		



Graph 2: Gender Wise Distribution Of Patients.

Table 3: Prevalence Of Oral Mucosal Variants In Non-Tobacco User Dental Patients.

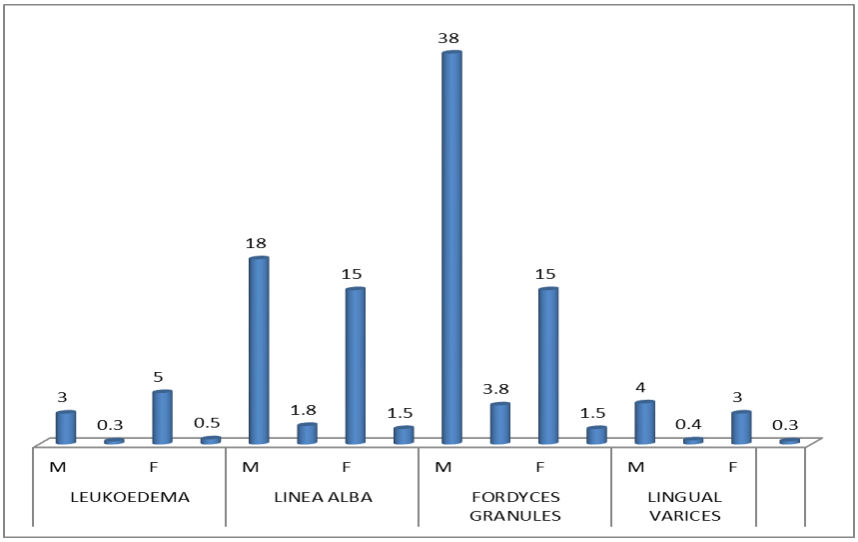
Oral mucosal variants	No. Of patients	Percentage (%)
Leukoedema	8	0.8
Linea alba	33	3.3
Fordyces granules	53	5.3
Lingual varices	7	0.7
Total	101	10.1



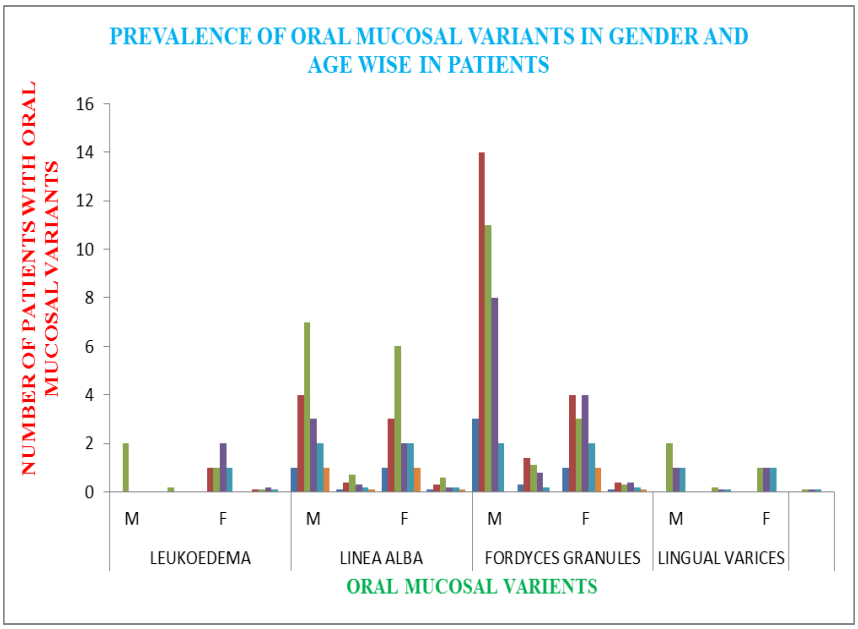
Graph 3: Prevalence Of Oral Mucosal Variants In Non-Tobacco User Dental Patients.

Table 4: Prevalence Of Oral Mucosal Variants In Gender And Age Wise In Patients.

Oral mucosal variants	Gender	11-20 M-62 F-40	21-30 M-93 F-57	31-40 M-130 F-73	41-50 M-143 F-74	51-60 M-90 F-62	61-70 M-95 F-65	71-80 M-9 F-2	Total no. (%) M-627 F-373	Total n (%) (m+f) 1000
Leukoedema	M	1 (0.1)	0	2 (0.2)	0	0	0	0	3 (0.3)	8 (0.8)
	F	0	1 (0.1)	1 (0.1)	2 (0.2)	1 (0.1)	0	0	5 (0.5)	
Linea alba	M	1 (0.1)	4 (0.4)	7 (0.7)	3 (0.3)	2 (0.2)	1 (0.1)	0	18 (1.8)	33 (3.3)
	F	1 (0.1)	3 (0.3)	6 (0.6)	2 (0.2)	2 (0.2)	1 (0.1)	0	15 (1.5)	
Fordyces granules	M	3 (0.3)	14 (1.4)	11 (1.1)	8 (0.8)	2 (0.2)	0	0	38 (3.8)	53 (5.3)
	F	1 (0.1)	4 (0.4)	3 (0.3)	4 (0.4)	2 (0.2)	1 (0.1)	0	15 (1.5)	
Lingual varices	M	0	0	2 (0.2)	1 (0.1)	1 (0.1)	0	0	4 (0.4)	7 (0.7)
	F	0	0	1 (0.1)	1 (0.1)	1 (0.1)	0	0	3 (0.3)	



Graph 4: Prevalence Of Oral Mucosal Variants In Gender Wise In Patients.



Graph 5: Prevalence Of Oral Mucosal Variants In Gender And Age Wise In Patients.

RESULTS

There were total 1000 patients within 11 -80 years range. There were 102 (10.2%) patients in 11-20 years age group, 150 (15.0%) patients in 21-30 years age group, 203 (20.3%) patients in 31-40 years age group, maximum 222 (22.2%) patients in 41-50 years age group, 152 (15.2%) patients in 51-60 years age group, 160 (16.0%) patients in 61-70 years age group and 11 (11.1%) patients in 71-80 years of age group (Table 1, Graph 1). There was 627 (62.7%) male and 373 (37.3%) female (Table 2, Graph 2).

It was found that 101 (10.1%) out of 1000 was oral mucosal variants, maximum 53 (5.3%) of fordyce's granules, 33 (3.3%) linea alba, 8 (0.8%) of leukoedema and 7 (0.7%) of lingual varices (Table 3, Graph 3).

Out of 1000 patients, no oral mucosal variants were found in 799 (79.9%) patients. The maximum number of oral mucosal variant was of fordyces granules in 53 (5.3%) in which 38 (3.8%) patients were male and 15 (1.5%) patients were female. The most common age group was 21-30 years in which Fordyce's granules was found. The age group with minimum number of cases of Fordyce's granules was 61-70 years.

The next most common oral mucosal variant was linea alba in 33 (3.3%) patients. Out of 33 patients the male patients were 18 (1.8%) and 15 (1.5%) female patients. The maximum patients were in the age group of 31-40 years including 7 (0.7%) male and 6 (0.6%) female. The minimum numbers of patients were in the age group of 11-20 and 61-70.

The next most common oral mucosal variant was leukoedema in 8 (0.8%) patients. Out of 8 patients the male patients were 3 (0.3%) and 5 (0.5%) female patients. The maximum patients were in the age group of 31-40 years including 2 (0.2%) male and 1 (0.1%) female. The minimum numbers of patients were in the age group of 11-20, 21-30, 51-60 including 1 patient in each group. The last and least common oral mucosal variant was lingual varices in 7 (0.7%) patients. Out of 7 patients, the male patients were 4 (0.4%) and 3 (0.3%) female patients. The maximum patients were in the age group of 31-40 years including 2 (0.2%) male and 1 (0.1%) female. The minimum numbers of patients were in the age group of 11-20, 21-30, 51-60 including 1 patient in each group. No oral mucosal variants were found in the age group of 71-80 years of patient. (Table 3).

DISCUSSION

Among all the oral mucosal variants recorded in the study, fordyces granules were the most prevalent oral mucosal variant (5.3%). Linea alba was seen in 3.3% which was comparatively lower than Martinez et al (10.7%).[4] The prevalence of Lingual varices in the present study was 0.7%. This finding was lower than Mathew et al (1.17%).[5] The presence of Leukoedema was seen in 0.8% of the cases, which was less when compared with Mathew et al (3.7%).[5]

CONCLUSION

Oral mucosal variants are very common and sometimes they resembles as oral mucosal disorders. Proper diagnosis and patient education is necessary.

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