

## ORIGINAL RESEARCH

# Clinical profile of patients with oral mucosal lesions in a tertiary care medical college hospital in south Bihar

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Received: 19 February, 2023

Accepted: 26 March, 2023

### ABSTRACT

**Aim and objectives:** To study the Clinical profile of patients with oral mucosal lesions visiting the Dermatology OPD in a Tertiary Care Medical College Hospital in South Bihar. **Materials and method:** The present study was conducted after clearance from Board of Studies, and Ethical committee in the Department of dermatology, venereology & leprology. **Results:** Among Auto-immune diseases, symptomatic oral lesions were significantly more among lichen planus, psoriasis, pemphigus vulgaris and bullous pemphigoid patients. **Conclusion:** Most of the time, oral manifestations may be found as an initial symptom in patients with dermatological lesions.

**Keywords:** Oral mucosal lesions, South Bihar

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### INTRODUCTION

The oral cavity exhibits a number of mucosal lesions. Oral lesions are frequently the result of local infections, but they can also be the initial sign of systemic diseases like dermatological disorders or even the main symptom in some circumstances.<sup>[1]</sup>The physical examination must be followed by a conclusive diagnosis.<sup>[2]</sup> From a dermatologist's standpoint, it is significant since the oral mucosa grows from the ectoderm.<sup>[3]</sup>

The dermatology outpatient department (OPD) sees a lot of patients who have physiological oral conditions like Fordyce spots, leucoedema, cheek biting, asymptomatic oral conditions like candidiasis, pigmentation, leukoplakia, and lichen planus, or they could have symptomatic oral diseases like aphthous ulcers. Patients might not be aware of the links between oral disease and cutaneous symptoms that are present.<sup>[4]</sup>

Oral lesions may be the only sign or symptom of one or more mucocutaneous diseases. The field of diagnostic stomatology has a special role to play in this situation because the mouth mucosa serves as a mirror that reflects the disease process occurring elsewhere and allows one to look beyond what the eyes can only perceive.<sup>[5]</sup>

A number of these mucocutaneous lesions have been categorised under several categories based on their causes and physical characteristics. In this study, we plan to examine the oral mucosa of all dermatology outpatient department patients for any symptomatic or asymptomatic involvement. This might assist in the early identification and timely treatment of these people given the connection between mucosal and systemic disorders.

### METHODOLOGY

The present study was conducted after clearance from Board of Studies, and Ethical committee in the Department of dermatology, venereology & leprology.

### INCLUSION CRITERIA

1. Patients with both symptomatic and asymptomatic oral mucosal lesions.
2. All age groups.
3. Patients who have given written informed consent.

### EXCLUSION CRITERIA

1. Patient with history of bleeding disorder, in case a biopsy is required.

The patient was thoroughly evaluated on the basis of history and examination. An oral mucosal lesion assessment form was filled for every patient.

The mount with potassium hydroxide (KOH) is an extremely helpful test for the laboratory detection of fungal infection of tissues, particularly skin, mucosa, hair, and nails. KOH digests the protein waste and dissolves the cement components that keep the keratinized cells together. This makes it simple to see under the microscope and separates the fungal elements from the undamaged cells. The Tzanck test, also known as a Tzanck smear, is a scraping of an ulcer base that is performed in dermatopathology to search for Tzanck cells. A biopsy of the oral tissue may be required in cases when the lesion in question cannot be identified based only on the patient's medical history and the clinical symptoms. Therefore, a biopsy was performed if it was necessary.

**RESULTS**

SPSS version 25.0 analyzed the Excel data when it was loaded. Majority (38.9%) of the subjects from more than 40 years. There were 54.8% males and 45.2% females among the study population. The site of lesion was found to be Buccal mucosa among 34.1%, Palate among 28.1%, Tongue among 20.5%, Lips among 12.8% and Gingiva among 4.5% subjects. Among study population, 32 (9.1%) had Systemic disorders and 320 (90.9%) had Primary dermatological disorders. Among Primary dermatological disorders, 19.1% had Auto-immune disorders, 9.1% had Connective tissue diseases, 19.9% had Infective disorders, 14.2% had Drug induced disorders, 4.5% had Neoplasm, 3.4% had Nutritional deficiencies and 26.7% had Miscellaneous disorders.

**Table 1: Distribution of asymptomatic and symptomatic oral lesions between Auto-immune diseases**

		Oral mucosal lesions				Total	p-value
		Asymptomatic		Symptomatic			
Auto-immune diseases	Lichen Planus	29	67.4%	14	32.6%	43	0.018*
	Vitiligo	11	100.0%	0	0.0%	11	
	Psoriasis	7	77.8%	2	22.2%	9	
	Pemphigus Vulgaris	0	0.0%	9	100.0%	9	
	Bullous Pemphigoid	5	83.3%	1	16.7%	6	
Connective tissue diseases	SLE	5	55.6%	4	44.4%	9	0.346
	DLE	7	58.3%	5	41.7%	12	
	Systemic sclerosis	4	66.7%	2	33.3%	6	
	Sjogrens syndrome	5	100.0%	0	0.0%	5	
Infectious diseases	Candidiasis	19	73.1%	7	26.9%	26	< 0.001*
	Herpes labialis	17	77.3%	5	22.7%	22	
	Warts	7	77.8%	2	22.2%	9	
	HMFD	0	0.0%	9	100.0%	9	
	Leprosy	2	50.0%	2	50.0%	4	

Symptomatic oral lesions were significantly more among lichen planus, psoriasis, pemphigus vulgaris and bullous pemphigoid patients. There was no significant difference in the distribution of asymptomatic and symptomatic oral lesions between subjects with different connective tissue diseases. Symptomatic oral lesions were significantly more among candidiasis, warts, leprosy and HMFD patients.

**Table 2: Distribution of asymptomatic and symptomatic oral lesions among infectious and Drug induced diseases**

		Oral mucosal lesions				Total	p-value
		Asymptomatic		Symptomatic			
Drug induced	Fixed drug eruption	10	83.3%	2	16.7%	12	< 0.001*
	SJS/TEN	0	0.0%	18	100.0%	18	
	Angioedema	15	75.0%	5	25.0%	20	
Neoplastic conditions	Leukoplakia	9	100.0%	0	0.0%	9	0.008*
	SCC	3	60.0%	2	40.0%	5	
	BCC	0	0.0%	2	100.0%	2	
Nutritional deficiency disorders	Vitamin B12 deficiency	6	100.0%	0	0.0%	6	0.001*
	Acrodermatitis enteropathica	0	0.0%	6	100.0%	6	
Miscellaneous	Aphthae	3	14.3%	18	85.7%	21	

	<b>Fordyce spots</b>	11	100.0%	0	0.0%	10	< 0.001*
	<b>Sub-mucous fibrosis</b>	10	83.3%	2	16.7%	12	
	<b>Mucocele</b>	5	100.0%	0	0.0%	5	
	<b>A-V malformation</b>	4	100.0%	0	0.0%	4	
	<b>Geographic tongue</b>	6	75.0%	2	25.0%	8	
	<b>Angular cheilitis</b>	3	21.4%	11	78.6%	14	
	<b>Fissured tongue</b>	8	88.9%	1	11.1%	9	
	<b>Smokers keratosis</b>	8	80.0%	2	20.0%	10	

**DISCUSSION**

In our study, the prevalence of oral mucosal lesions among the study population was 12.8%. This was more than the study done by *Zain et al.*[7] (9.7%). This finding concurs with that from the study of *Ramirez-Amador et al.*,[8] who reported that the frequency of OMLs in the dermatology clinic was 2.8%. Thus, the variation in the prevalence of OMLs may be influenced by sample size, geographic distribution, biologic and genetic profile of the patients, and study design.

In our study, the study population consisted of 132 (33.0%) subjects from less than 20 years, 108 (27.0%) subjects from less than 21-40 years and 160 (40.0%) subjects from more than 40 years.

This was quite similar to study by *Asia et al.*,<sup>4</sup> Oral lesions were more commonly seen in third and fourth decades.

In our study, OMLs were common in men (52.0%) than women (48.0%), which was in agreement with the study by *Avcu and Kanli*[9] there were slightly more females (53.5%) than males. This may be related to higher prevalence of smoking among men.

The high prevalence of lesions in males could be attributed to the higher number examined and the higher prevalence of tobacco use by males and the greater access they have to the outlets that sell tobacco and its products, whereas because of cultural constraints, women have to maintain a certain image and are less likely to practice the unhealthy habits.

Among Primary dermatological disorders, 25.0% had Auto-immune disorders, 20.0% had Infective disorders, 14.0% had Drug induced disorders, 4.0% had Neoplasm, 3.0% had Nutritional deficiencies and 26.0% had miscellaneous disorders.

OML may appear as a part of mucocutaneous diseases, a manifestation of systemic diseases (metabolic or immunological), or an expression of drug reaction. Some OML diagnosed could be attributed to trauma, infection, or denture use, or they could be a manifestation of specific cultural habits, like use of tobacco.

The present study showed that 38.0% of oral mucosal lesions were present on the buccal mucosa.

In our study, the common asymptomatic oral conditions were Fordyce spots, Sub-mucous fibrosis, Mucocele, A-V malformation, geographic tongue, fissured tongue, smokers keratosis, vitamin B12 deficiency, leukoplakia, vitiligo and pemphigus vulgaris.

In the study by *Asia et al.*,<sup>4</sup> out of 116 patients who had oral lesions, only 15 (13%) were symptomatic and pain was the commonest symptom. Common symptomatic diseases were oral candidiasis, ulcerative diseases like pemphigus vulgaris, aphthous ulcers and herpes zoster. The oral leukoplakia was found among 2.25% patients in our study.

In current study, oral candidiasis was found among 7.5% patients which was quite lesser than the study by *Asia et al.*,<sup>4</sup> oral candidiasis was observed in 12.9% of patients. Most epidemiological studies of oral candidiasis have shown very varied results (0.01–37%). The differences in data collection methods, sampling sites, population subgroups, and analysis techniques were responsible for the relatively wide variety of prevalence of Candida carrier status.

Lichen planus is one of the most common dermatological diseases that manifest itself in the oral cavity. The condition can affect either the skin or mucosa or both. About half of the patients with skin lesions have oral lesions, whereas about 25% present with oral lesions alone. It is seen clinically as reticular, papular, plaque-like, erosive, atrophic, or bullous types. Intraorally, the buccal mucosa, tongue, and the gingiva are commonly involved, although other sites may be rarely affected.

In current study, the pemphigus vulgaris was found among 3.0% of the subjects and bullous pemphigoid among 2.0% subjects. Pemphigus is one of the few potentially fatal diseases affecting the skin and oral mucosa. Various forms of pemphigus produce skin lesions, but two of these, Pemphigus vulgaris and paraneoplastic pemphigus, typically have oral lesions. Pemphigoid is a group of bullous diseases that have a diversified morphologic presentation and affect the skin, oral mucosa, and other mucosal membranes, alone or in combination.

**CONCLUSION**

It is important to pay attention to the oral mucosal lesions that are caused by skin diseases because some of them pose a risk to the patient's life, while others have a significant negative impact on the individual as well as on society in terms of pain, discomfort, and social as well as functional limitations. As a result, adopting a multidisciplinary approach not only improves the prognosis of the disease but also the quality of patients.

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