



## Exploring an Association of Oral Mucosal Disorders with Psychiatric Disorders for Their Effective Management

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### ABSTRACT

*The objective of the study was to evaluate correlation of recurrent aphthous stomatitis, burning mouth syndrome and oral lichen planus with psychological alterations of the patient and intake of psychiatric drugs. In the present study, two hundred patients were screened to establish relationships between oral health and psychiatric health. In recurrent aphthous stomatitis patients, mainly associated psychiatric disorder was anxiety (36.67%) while depression was chiefly associated with burning mouth syndrome, and oral lichen planus (50% and 50% respectively). On other side, overall increased prevalence of oral mucosal disorders is observed in patients who were suffering from psychiatric disorder and taking medications for the same. Thus, the periodic oral examination is recommended for patients who are on psychiatric medicines.*

**KEYWORDS : Stress, Anxiety, Depression**

### Introduction-

Recurrent aphthous stomatitis (RAS), burning mouth syndrome (BMS), and oral lichen planus (OLP) are the common oral mucosal diseases known to have a psychosomatic component. 1, 2 The possible association of psychological factors such as stress, anxiety, or depression in their genesis has been suggested by several authors. 1-4 But, the studies illustrating the association between intake of psychiatric drugs and occurrence of RAS, BMS and OLP are infrequent. 5, 6 Considering psychosomatic etiology and possible exacerbation of these mucosal diseases by psychiatric drugs as the common features, the present study was undertaken with the following aims: 1) To evaluate the prevalence and type of psychiatric disorder coexisting with RAS, BMS and OLP and 2) To assess association of RAS, BMS, and OLP with intake of psychiatric drugs.

### Materials and Methodology

This cross-sectional study was conducted after an approval by Institutional Review Board. The study enrolled 200 patients with a distribution of 100 patients in each of groups.

Group I - 100 patients, who were suffering from one of the oral mucosal disorders at the moment of examination.

Group II -100 patients, who were suffering from psychiatric disorder and taking psychiatric drugs for more than 6 months.

The consent was obtained from all the subjects. A specially designed patient information sheet, which comprised of two parts, was used for recording the study details. The first part included the demographic details, history about any systemic illness, drug history and details of oral diseases (RAS, BMS, and OLP). The second part included the information about the diagnosis of psychiatric disorder and the medication for the same. The statistical analysis was performed after recording the findings in tabular format. For the parameters, 95% confidence intervals were calculated.

### Results

Concerning the oral mucosal disorders in Group I, 60 patients were suffering from RAS, 24 patients from BMS and 16 patients from OLP (Total 100).

The prevalence of stress, anxiety and depression was found to be 8% (no.=8), 26% (no.=26), and 36% (no.=36), respectively, while 22% (no.=11) patients were suffering from at least one other psychiatric disorders such as insomnia, somatoform disorder, Schizophrenic disorders or psychoactive substance use disorder in group I.

**Table 1: Co-relation of oral diseases (RAS, BMS or OLP) with psychiatric disorder**

	Type of psychiatric disorder					
	Stress	Anxiety	Depression	Others	Absent	
RAS	06 (10%)	22 (36.67%)	16 (26.67%)	08 (13.33%)	008 (13.33%)	60
BMS	00 (0%)	02 (8.33%)	12 (50%)	10 (41.67%)	00 (0%)	24
OLP	02 (12.50%)	02 (12.50%)	08 (50%)	04 (25%)	00 (0%)	16
Total	08 (08%)	26 (26%)	36 (36%)	22 (22%)	08 (08%)	100
2-value	87.37					
p-value	p=0.0001,S					

A notable finding of the present study was overall increase in prevalence of oral mucosal disorders in patients who were taking psychiatric medications. Amongst these, prevalence of BMS is observed to be highest (24%) followed by RAS (18%). As far as the association between the type of drug and type of oral disease is concerned, RAS is observed to be mainly associated with antidepressant and antipsychotic drugs while BMS was significantly more common in patients taking benzodiazepines, with the next most common class of medications associated with BMS being anxiolytics. [Table 2]

**Table 2- Prevalence of RAS, BMS & OLP in relation to the type of psychiatric medication**

Type of Psychiatric medication	RAS	BMS	OLP	Total
Antipsychotic drugs (no. 38)	08 (21%)	10 (26%)	02 (5%)	20 (53%)
Antidepressants (no. 42)	10 (24%)	04 (10%)	00	14 (34%)
Benzodiazepines (no. 08)	00	06 (75%)	00	06 (75%)
Anti-anxiety (no.08)	00	02 (50%)	00	02 (50%)
Other drugs (no. 04)	00	00	02 (50%)	02 (50%)
Total 100	18 (18%)	24 (24%)	04(4%)	46 (46%)
2-value	355.0			
p-value	P=0.0001,S			

## Discussion

Changing demographics and changes in medical management have altered the population's oral care needs. As a result, new demands have been placed on dentistry for increased knowledge and awareness in the diagnosis and medical management of oral mucosal diseases, oral manifestations of systemic diseases, and oral complications of medical therapy.

In the present study, with reference to the prevalence of psychiatric disorders in patients suffering from oral mucosal disorders like RAS, BMS and OLP, statistically significant difference is observed between study subjects and control group subjects. This finding supports the basic concept of an association of RAS, BMS and OLP with psychiatric illness. 1, 7, 8

To support the findings of present study, evidence from previous studies can be considered. Shah et al, 8 stated that psychological stress and psychiatric illness can modify immunological functions. Ivanovski et al,9 suggested psychosocial and emotional stress as the possible factors converting reticular OLP to erosive OLP. All this information represents that, interaction of biological and psychological systems plays a role in origin of these mucosal disorders. Thus, Delavarian et al, 10 suggested the use of a combination of psychotherapy and conventional treatment in OLP.

The high prevalence of oral mucosal disorders (46%) in patients taking psychiatric medications is another valuable finding of this study, which supports the findings of the previous studies. 5, 7, 11 Among the medications, the patients taking benzodiazepines showed highest prevalence of BMS, which is comparable to the previous reports [6, 7]. In contrast, Soares et al,12 concluded that there was no association between BMS and the use of psychiatric drugs.

Bertini et al, 13 reported a case in which an antidepressant used to treat depression resulted in development of an oral mucosal ulcer. In the present study also a large proportion of patients who were using antidepressants exhibited RAS (24%).

Friedlander et al, 14 gave a detailed account of adverse effects of psychotropic medications on oral mucosa. Ebrahimi et al, 15 explained that prolonged chronic discomfort affects an individual's emotional profile. A prolonged period of untreated and sometimes undiagnosed oral pain probably aggravates the already disturbed psychology of the patients and consequently makes them more resistant to therapy. 15

The observations of the present study revealed two way associations between RAS, BMS, OLP and psychiatric disorders. That is, i) prevalence of psychiatric disorders in RAS, BMS and OLP patients, and ii) high prevalence of oral mucosal disorders in patient suffering from psychiatric disorder and taking medication for the same.

Conclusion- Exploration of psychological factors and inclusion of an antipsychotic drug (if necessary) in addition to routine therapy could be an appropriate treatment protocol for the persistent cases of these oral mucosal disorders. Nevertheless in psychiatric patients, periodic oral examinations by an oral specialist are recommended to detect any occult oral disease as an adverse effect of psychotropic drug.

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