



Association of Oral Health with Psychological Health

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ABSTRACT

The aim was to evaluate prevalence of psychological disorders in patients suffering from recurrent aphthous stomatitis (RAS), burning mouth syndrome (BMS) and oral lichen planus (OLP). Hundred participants were screened based on their clinical profile, and standardized psychiatric scales to establish relationships between oral health and psychiatric health. Anxiety was prevalent in patients of RAS while depression was prevalent amongst BMS patients and OLP patients which conclude that consideration should be given to psychological evaluation and psychotherapy in such patients during their management.

KEYWORDS

Stress, Anxiety, Depression

Introduction-

Recurrent aphthous stomatitis (RAS), burning mouth syndrome (BMS), and oral lichen planus (OLP) are the oral mucosal diseases known to have a psychosomatic component.^{1,2} The role of psychological factors in their genesis is reported in the literature.^{1,4} The aim of this study was to evaluate the prevalence of psychiatric disorders coexisting with RAS, BMS and OLP

Methodology-

This institutional ethical committee approved study included 100 patients, which were equally divided into Study group (Group I) and control group (Group II). An inclusion criterion was patients with clinical diagnosis of RAS, BMS or OLP. An exclusion criteria were patients suffering from any oral or systemic disease which is known to cause ulcerations and burning of oral mucosa. All the participants were informed about the study and their written consent was obtained. All these subjects attended an appointment with oral diagnostician as well as a psychiatrist.

Aphthous ulcers were diagnosed based on the presence of clinically well-defined ulcers surrounded by an erythematous halo and the history of recurrent episodes of similar multiple painful ulcers.⁵ OLP was diagnosed according to the characteristic appearance of white, white and red, or erosive red lesions with radiating white lines intersecting with each other, known as Wickham's striae.^{2,5} In doubtful cases, the diagnosis of OLP was confirmed by histopathological examination. BMS was diagnosed when the patient gave history of a chronic stinging or burning sensation of the oral mucosa, mostly of the tongue, in the absence of clinical or laboratory data to justify this symptom.⁶ Psychiatric disorders were diagnosed by a senior psychiatrist in accordance with the International Classification of Diseases [ICD-10].

All the findings were recorded in tabular format and subjected to statistical analysis. For the parameters, 95% confidence intervals were calculated.

Results

In study group, 30 patients were suffering from RAS, 12 from BMS and 16 had OLP (Total no = 50). In terms of the prevalence of psychiatric disorder in patients suffering from these oral mucosal diseases, anxiety was observed to be more prevalent in RAS patients (no. =11, 37%) while prevalence of depression was 50% in both BMS and OLP patients. On comparison with control group, the results were found to be statistically significant ($p < 0.05$) as shown in Table 1.

Table 1- Prevalence of psychiatric disorders in Group I and its comparison with Group II

Oral disease	Stress	Anxiety	Depression	Other psychiatric disorders	Absent
RAS (no.30)	03(10%) 10.08 p=0.001, S	11(36.67%) 7.49 p=0.006, S	08(26.67%) 0.23 p=0.62, NS	04(13.33%) 1.77 p=0.18, NS	04(13.33%) 8.56 p=0.003, S
BMS (no.12)	00(0.00%) 4.08 p=0.04, S	01(8.33%) 6.16 p=0.01, S	06(50.00%) 14.50 p=0.0001, S	05(41.67%) 11.31 p=0.0008, S	00(0.00%) 35.29 P<0.0001, S
OLP (no. 8)	1(12.50%) 5.20 p=0.02, S	1(12.50%) 1.84 p=0.14, NS	4(50.00%) 14.50 p=0.0001, S	2(25.00%) 0.71 p=0.39, NS	00(0.00%) 35.29 P<0.0001, S
Control group (no.50)	02 (4.00%)	11(22.00%)	12 (24.00%)	10 (20.00%)	15(30.00%)

p - p-value

S- Significant, if $p < 0.05$,

NS- Not Significant, if $p > 0.05$

A remarkable finding of the present study was, all BMS and OLP patients were suffering from psychiatric disorder. Though stress, anxiety and depression were the common psychiatric disorders observed in this study, few patients were diagnosed to have some other psychiatric disorders such as schizophrenia or psychoactive substance use disorder, somatoform disorder etc. The statistical significance about the association of RAS, BMS and OLP with psychological disorders is depicted in Table 1.

Discussion

The oral cavity is a location for different conditions of local and systemic origin; many of them have multifactorial etiology, where the psychogenic factors constitute an important factor to be considered.⁷⁻¹⁰

The findings of the present study supports the basic concept of an association of RAS, BMS and OLP with psychiatric illness as statistically significant difference is observed between study subjects and control group subjects with reference to an association with psychological alterations.^{1,6,11} To explain this association between RAS, BMS, OLP and psychological factors, evidence from previous studies can be considered.

Shah et al,¹¹ (2009) stated that psychological stress and psychiatric illness can modify immunological functions. Oral mucosa is basically a complex and vulnerable region that is very

reactive to certain psychological influences.^{12,13} It is suggested that psychosocial and emotional stress may convert reticular OLP to erosive OLP. In other words psychological distress may worsen the oral disease. All this information represents that, interaction of biological and psychological systems plays a role in origin of these mucosal disorders. Thus, Delavarian et al, (2010) suggested the use of a combination of psychotherapy and conventional treatment in OLP.

On the contrary, Ebrahimi et al,¹⁵ (2009) explained that prolonged chronic oral 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. But, it is impossible to state whether the observed psychologic alterations constitute a cause of studied oral mucosal disorders or the cause and effect relationship is vice versa.

Conclusion-

There is an association between RAS, BMS, OLP and psychological well being of the patient. Oral physician and psychiatrist in co-ordination can serve these people in the most appropriate way.

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Disclosure-

The author reports no other conflicts of interest in this work.

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