

ORIGINAL RESEARCH

A clinico- epidemiological study to estimate prevalence of Bruxism in Relation to Psychological Factors

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Received: 25 October, 2015

Accepted: 28 November, 2015

ABSTRACT

Background: The world's population is now weaker and worse than before due to modernization, both mentally and physically. A person's physiological functioning is negatively impacted by psychological stress to the point of extreme discomfort. The present study was conducted to assess bruxism and oral lesions in psychiatric patients. **Materials & Methods:** 74 psychiatric patients of both genders were selected. Psychiatric patients were kept in group I and healthy control in group II. The type of psychiatric disorder and drugs used. All the oral disorders were diagnosed. **Results:** Out of 74 patients, males were 44 and females were 30. Psychiatric lesions were major depression in 40, schizophrenia in 20, mood disorders in 14. The difference was significant ($P < 0.05$). Common oral lesions were RAS in 13, OLP in 6, BMS in 15 and bruxism in 21 cases. The difference was significant ($P < 0.05$). **Conclusion:** Most of the cases were diagnosed with recurrent, aphthous stomatitis, burning mouth syndrome, oral lichen planus and bruxism.

Keywords: bruxism, depression, mood disorders

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INTRODUCTION

The world's population is now weaker and worse than before due to modernization, both mentally and physically. A person's physiological functioning is negatively impacted by psychological stress to the point of extreme discomfort. Over time, this has led to a sharp rise in the prevalence of psychiatric illnesses in the general population.

Numerous psychotropic medications are frequently used to treat these mental health problems. These days, oral health promotion and oral illness are given a lot of attention.^{1,2}

In India, the number of people experiencing mental health issues is concerning increasing. Twenty million Indians are estimated to require treatment for major mental diseases by the Bangalore-based National Institute of Mental Health and Neurosciences (NIMHANS), while another fifty million suffer from mental illnesses that are not thought to be extremely dangerous. As most of the patients with psychiatric disorders are under multiple psychotropic medications, identifying the effects of each class of drugs is essential in managing oral diseases in these patients.³ Poor oral hygiene in individuals with

psychiatric disorders may be influenced by a variety of conditions. These include the use of drugs that may cause a reduction in salivary secretion, an improper diet, and the apathy of many psychiatric patients. Reduced salivary secretion is one of the most significant side effects of psychotropic medications that can lead to various oral diseases.⁴ The present study was conducted to assess bruxism and oral lesions in psychiatric patients.

MATERIALS & METHODS

The present study was conducted on 74 psychiatric patients of both genders. All were informed regarding the study and their written consent was obtained.

Data such as name, age, gender etc. was recorded. Psychiatric patients were kept in group I and healthy control in group II. A thorough clinical examination of the patient was performed and a questionnaire was filled which included information on age, sex, duration of illness, education, type of psychiatric disorder and drugs used. All the oral disorders were diagnosed. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS**Table I Distribution of patients**

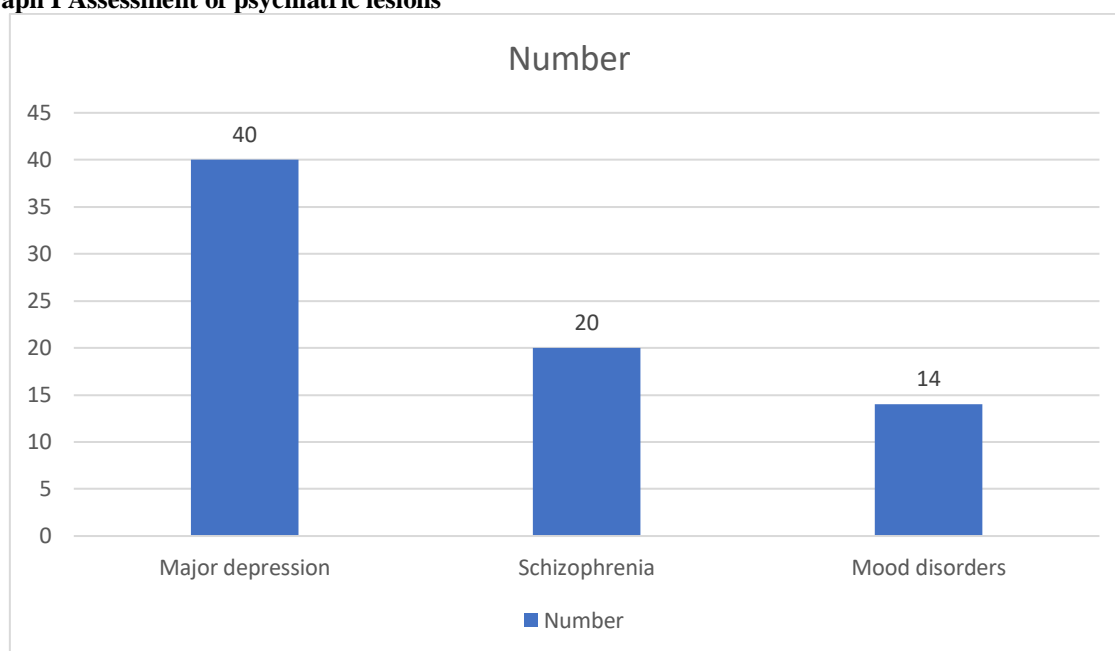
Total- 74		
Gender	Male	Female
Number	44	30

Table I shows that out of 74 patients, males were 44 and females were 30.

Table II Assessment of psychiatric lesions

Psychiatric lesions	Number	P value
Major depression	40	0.05
Schizophrenia	20	
Mood disorders	14	

Table II shows that psychiatric lesions were major depression in 40, schizophrenia in 20, mood disorders in 14. The difference was significant ($P < 0.05$).

Graph I Assessment of psychiatric lesions**Table III Type of oral lesions and bruxism**

Oral lesions	Number	P value
RAS	13	0.01
OLP	6	
BMS	15	
Bruxism	21	

Table III shows that common oral lesions were RAS in 13, OLP in 6, BMS in 15 and bruxism in 21 cases. The difference was significant ($P < 0.05$).

DISCUSSION

According to WHO report on mental health in 2017, it is estimated that one in every 10 individuals (10.7%), around 792 million people in the overall population, suffers from a diagnosable psychological illness, which can vary from mild depression, panic disorder, kleptomania to a more debilitating condition like psychosis and schizophrenia.^{5,6} People with psychiatric disorders are unable to execute routine essential activities of everyday life owing to a psychological or personal condition. Many of these individuals are managed with psychotropic drugs which have varied effects on the oral mucosa.^{7,8}

According to a recent study, people with severe psychiatric disorders face about 3.4 times the probability of losing all their teeth as that of the normal population. These individuals have an increased risk of decay and periodontal disease as a consequence of bacterial infections.⁹ The present study was conducted to assess bruxism and oral lesions in psychiatric patients.

We found that out of 74 patients, males were 44 and females were 30. Kaur et al¹⁰ aimed to determine the prevalence of oral mucosal lesions and bruxism in psychiatric patients dependent on psychotropic drugs. Dental examination was done and questionnaire

administered to 150 psychiatric patients and 150 control participants. In dental examination recurrent aphthous stomatitis, burning mouth syndrome, oral lichen planus, bruxism, temporomandibular disorders were evaluated. Results showed that psychiatric patients had higher prevalence of bruxism, oral mucosal lesions in general, than the control group.

We found that psychiatric lesions were major depression in 40, schizophrenia in 20, mood disorders in 14. Nares et al¹¹ explored the possibility of psychosomatization, we evaluated the psychological personality profiles of OLP patients. Twenty patients with reticular; 20 with erosive form of OLP, and 25 controls were tested with the psychological Minnesota Multiphasic Personality Inventory (MMPI)-202 test. Eight clinical scales (hypochondriasis, depression, hysteria, psychopathic deviate, paranoia, psychasthenia, schizophrenia, and hypomania) as well as cortisol level, CD3, CD4, CD8, and CD16 markers by group were compared. Psychosomatization was evaluated by the use of internalization ratio (IR) Index. A characteristic MMPI profile was noted in the OLP groups with high IR index value. Significant differences among the groups were detected for cortisol, CD4, CD8, and CD16 counts. Mean values for hypochondriasis, depression, and hysteria were all significantly different with significantly higher mean scores for both reticular and erosive OLP subjects compared with controls.

We found that common oral lesions were RAS in 13, OLP in 6, BMS in 15 and bruxism in 21 cases. Winocur et al¹² investigated the prevalence of bruxism and signs of temporomandibular disorders (TMDs) among psychiatric patients compared with a healthy population and to assess the effect of psychiatric medications on the parameters studied. Subjects included 77 psychiatric patients under treatment at 2 psychiatric hospitals in Israel and 50 healthy individuals (control). One experienced calibrated examiner performed the clinical examination (presence of bruxism and signs of TMD). Abnormal attrition was evident in 46.8% of the psychiatric patients compared with 20% in the controls ($P < .005$). Significant differences between groups were apparent for mean muscle sensitivity to palpation, joint sensitivity to palpation, and range of mouth opening. There were no differences between groups in the prevalence of joint clicks and no association between time of receiving treatment with dopamine antagonists (or any other psychotropic drugs) and TMD signs and symptoms.

The shortcoming of the study is small sample size.

CONCLUSION

Authors found that most of the cases were diagnosed with recurrent, aphthous stomatitis, burning mouth syndrome, oral lichen planus and bruxism.

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