

SLEEP BRUXISM DUE TO VENLAFAXINENavneet Kaur Bhatia*¹, Navleen Kaur Bhatia², Anmol Singh Bhatia³ and M. S. Bhatia⁴¹Department of Dental Surgery, Dr. RML PGIMER & Hospital, New Delhi-110001.²Department of Dentistry, AIIMS, Jodhpur, Rajasthan.³Intern, ABVIMS and Dr. RML Hospital, New Delhi-110001.⁴Department of Psychiatry, UCMS & GTB Hospital, Dilshad Garden, Delhi-110095.***Corresponding Author: Navneet Kaur Bhatia**

Department of Dental Surgery, Dr. RML PGIMER & Hospital, New Delhi-110001.

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ABSTRACT

Bruxism is characterized by a non-functional convergence of teeth and disorders of the temporomandibular articulation and chewing muscles. While people also grind their teeth while awake, sleep bruxism is generally a bigger health concern. Sleep bruxism affects 5-8% and equally affects both genders. There are many risk factors including medication, which need to be timely identified. We report a case of bruxism presented to Dental OPD with complaints of tooth and jaw pain. He was correctly identified, referred and treated.

KEYWORDS: Bruxism, Sleep, Etiology, Venlafaxine, Clonazepam.**INTRODUCTION**

Bruxism comes from the Greek word "brychein" for "gnashing of the teeth".^[1] The term "bruxism" comes from "bruxomania" which first appeared in the literature in an article by Marie and Pietkiewicz cited by Ramfjord^[2], but was first used by Frohman^[3], to define the problem of a dental nature, resulting from non-physiological movements of the mandible especially in stress. It is characterized by a non-functional convergence of teeth and disorders of the temporomandibular articulation and chewing muscles.^[4,5]

The prevalence of bruxism is 8–31.4% [22.1–31% - awake bruxism; 9.7–15.9% - sleep bruxism] and affects 14-20% children. It is equally common in both genders.^[5,6]

Bruxism presents with tooth pain, jaw pain, unexplained facial pain, headaches, changes in the shape of teeth, broken or chipped teeth, crowns or fillings and complaints of grinding or gnashing sounds during sleep and thus affecting its quality.^[7]

The identified risk factors include genetic factors, stress, age, comorbid sleep disorders such as sleep apnea, aggressive, competitive or hyperactive personality traits, use of antidepressants (e.g., citalopram, escitalopram, paroxetine, sertraline, duloxetine etc.) or regular use of alcohol, caffeinated products and tobacco.^[4, 8-11] Bruxism is also classified into stress type and non-stress type. "Stress" bruxism is more in emotionally disturbed individuals and may result due to tension, habit,

interference with occlusion, occupation, marital status, job problems, worry and hurry.^[12,13]

Bruxism is diagnosed clinically based on history (e.g. reports of grinding noises) and typical signs and symptoms, including tooth mobility, tooth wear, masseteric hypertrophy, indentations on the tongue, hypersensitive teeth (which may be misdiagnosed as reversible pulpitis), pain in the muscles of mastication, and clicking or locking of the temporomandibular joints.^[14,15] Questionnaires are also available to screen bruxism in both the clinical and research settings.^[16]

We report a case of sleep bruxism resulting due to an antidepressant venlafaxine and responded to clonazepam.

CASE REPORT

A 30-year-old married man was referred from Dental OPD for severe tooth pain and jaw ache since last six weeks. The pain was more intense in the morning. The patient was not aware of any forceful biting and grinding of his teeth during night. The patient reported that he also had developed sad mood, decreased appetite, disturbed sleep, decreased concentration, reduced interest in working and hopelessness two months back. He consulted a psychiatrist who had started an antidepressant venlafaxine 75 mg daily, which was increased to 150 mg in 4 weeks. The patient's wife noticed his mood has improved but the complaint of grinding or gnashing sounds at night had appeared affecting her sleep. She brought the patient to dental OPD for tooth and jaw pain and to rule out any dental problems.

There was no history of tobacco chewing, smoking or excessive intake of caffeinated drinks. Past history and family history was negative for any chronic physical and psychiatric disorder or drug abuse. Routine blood and urine investigations, X-ray chest, thyroid function tests, EEG and MRI brain were normal.

On intraoral examination, the periodontium showed normal and healthy. Extra orally, the patient exhibited mild tenderness in the region of TMJ and masseter muscle. No abnormality was detected on TMJ movement. There was no history of recent Dental treatment. The patient was diagnosed as a case of bruxism and was referred.

The patient was advised to gradually taper off venlafaxine in 2 weeks and he was gradually shifted to mirtazapine 30 mg daily and clonazepam 0.5 mg at night. The problem of bruxism disappeared in 3 weeks. On follow-up at 6 weeks, the patient had remission of depressive symptoms and sleep bruxism.

DISCUSSION

Bruxism affects the majority of the population at some point of time during their lifetime. It becomes a pathological condition when the subject presents severe tooth damage or complaint of non-restorative sleep.^[19]

Bruxism has no cure. However, symptoms of bruxism and damage to the teeth can be reduced or through a combination of therapies.^[17,20,21] "Stress" bruxism has more muscular symptoms and are seen more in emotionally disturbed individuals. In the present case, there was work pressure and job insecurity.

Treatment modalities involve occlusal correction, behavioral change, hypnosis and pharmacological approach.^[17,18] Lifestyle modifications can help reduce symptoms and improve sleep quality. Techniques such as meditation, yoga and deep breathing exercises help in reducing stress.^[14,17]

The most common method used in treating bruxism in a dental clinic is by using habit breaking appliances such as Hawley's appliance or occlusal splints.^[17,18] In the present case, no dental intervention was given and he improved on medication and counselling.

Clonazepam belongs to a class of benzodiazepines, which act on the brain and nerves (central nervous system) to produce a calming effect. This drug works by enhancing the effects of a certain natural chemical in the body (GABA). Benzodiazepines are used for their sedative, anxiety-relieving and muscle-relaxing effects.^[19,20]

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