

SLEEP BRUXISM SUCCESSFULLY TREATED WITH CLOBAZAMNavneet Kaur Bhatia¹, Navleen Kaur Bhatia² and M. S. Bhatia*³¹Department of Dental Surgery, Dr. RML PGIMER & Hospital, New Delhi-110001.²Department of Dentistry, AIIMS, Jodhpur, Rajasthan.³Department of Psychiatry, UCMS & GTB Hospital, Dilshad Garden, Delhi-110095.Article Received on
26 Jan. 2019,Revised on 17 Jan. 2019,
Accepted on 08 March 2019

DOI: 10.20959/wjpr20194-14438

Corresponding Author*M. S. Bhatia**Department of Psychiatry,
UCMS & GTB Hospital,
Dilshad Garden, Delhi-
110095.**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. Like other sleep-related movement disorders, bruxism is characterized by involuntary, unconscious movement during sleep. Bruxism is a parafunctional buccal habit characterized by a non-functional convergence of teeth and disorders of the temporomandibular articulation and muscles used in chewing.^[4]

^{6]} While people also grind their teeth while awake, sleep bruxism is generally a bigger health concern.

Sleep bruxism affects only 5-8% of the adult population, whereas it is more frequent in children, reaching 14-20% in those < 11 years of age.^[6] A systematic review reported a prevalence of about 22.1–31% for awake bruxism, 9.7–15.9% for sleep bruxism, and an overall prevalence of about 8–31.4%. The review also concluded that overall, bruxism affects males and females equally.^[7]

Common symptoms of bruxism are: Pain (Tooth pain, jaw pain, unexplained facial pain, earaches, and headaches, Pain and swelling in the jaw), Changes in the shape of teeth, Broken or chipped teeth, crowns or fillings, Complaints of grinding or gnashing sounds at night from bed partners and affects quality of sleep.^[8,9]

The exact etiology is not known. The risk factors include role of genetic factors, stress, age, other sleep disorders such as sleep apnea, personality type (aggressive, competitive or hyperactive), use of antidepressants (e.g. paroxetine, duloxetine, venlafaxine) or regular use of alcohol, caffeinated products and tobacco.^[4,10-14] Bruxists are classified into two categories: 1) those whose bruxism was associated with stressful events and 2) those whose bruxism had no such association.^[2] "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, and so on.^[15,16]

A diagnosis of bruxism is usually made clinically,^[17] and is mainly based on the person's history (e.g. reports of grinding noises) and the presence of 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.^[18] Questionnaires can be used to screen for bruxism in both the clinical and research settings.^[18]

We report a case of sleep bruxism successfully treated with medication (clobazam).

CASE REPORT

A 16-year-old boy was referred from Dental OPD for pain in all his teeth and jaw since last six months. Pain had exaggerated recently and was severe in nature. The patient's mother reported that he also had disturbed sleep and sleep talking also. The pain was more intense in the morning. He was not aware of any forceful biting and grinding of his teeth. The patient's mother had heard teeth grinding noise at night and at times, sleep talking and restlessness during night.

The boy was studying in 10th standard and was average in studies without any failure. There was approaching high school board examination and it had exacerbated the complaints.

The patient brushed his teeth twice a day with toothbrush and paste, with correct method of brushing. 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 investigations, X-ray chest, thyroid function tests, EEG and CT scan were normal.

On intraoral examination, the periodontium showed normal, healthy clinical features. There was neither caries nor any fillings in his mouth. The X-ray picture was also normal. 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.

The patient had received anti-inflammatory drugs in the past but without any relief of pain. He was put on tablet Clobazam 2.5 mg in the afternoon and 5 mg at night. The parents were also guided to support the child without putting any unwanted stress for examination. On follow-up at two weeks, there was mild improvement in sleep bruxism. The night dose of drug was increased to 10 mg. After one month, the mother reported complete disappearance of jaw pain, grinding of teeth, restlessness and sleep talking. The patient was last followed up at 8 weeks after treatment without any complaints.

DISCUSSION

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

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

Treatment modalities involve occlusal correction, behavioral change, and pharmacological approach.^[17-22] Lifestyle modifications can help reduce symptoms and improve sleep quality. Meditation, yoga and deep breathing exercises can reduce stress.^[14,17] Hypnosis has also been successfully used.^[14,21,23]

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

Clobazam is used with other medications to help control seizures. It 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.^[24] Preliminary analyses suggest that clobazam may be beneficial for sleep in patients with epilepsy, primarily by increasing total sleep time.^[25] This is probably the first report of successful use of clobazam in sleep bruxism.

REFERENCES

1. <https://www.dictionary.com/browse/bruxism>
2. Ramfjord SP. Bruxism, a clinical and electromyographic study. *J Am Dent Assoc.*, 1961; 62: 21-44.
3. Frohman BS. The application of psychotherapy to dental problems. *Dent Cosmos*, 1931; 73: 1117-23.
4. Balatsouras D, Kaberos A, Psaltakos V, Papaliakos E, Economou N. Bruxism: two case reports. *Acta Otorhinolaryngol Ital*, 2004; 24: 165-170.
5. American Academy of Orofacial Pain. Guidelines for assessment, classification, and management. Chicago, IL: Quintessence, 1996; 223-68.
6. Kato T, Thie NMR, Montplaisir JY, Lavigne GJ. Bruxism and orofacial movements during sleep. *Dent Clin N Am.*, 2001; 45: 657-684.
7. Manfredini D, Winocur E, Guarda-Nardini L, Paesani D, Lobbezoo F. Epidemiology of bruxism in adults: a systematic review of the literature. *J Orofac Pain*, 2013; 27(2): 99–110.
8. <https://www.mayoclinic.org/diseases-conditions/bruxism/symptoms.../syc-20356095>
9. <https://www.alaskasleep.com/blog/sleep-bruxism-teeth-grinding-symptoms-causes-treatment>
10. Ulvi UA, Faruk U, Hüseyin KH, et al. Antidepressant-Induced Sleep Bruxism: Prevalence, Incidence, and Related Factors. *Clin Neuropharmacology*, 2015; 38: 227–230.
11. Lobbezoo F, Van Der Zaag J, Naeije M. Bruxism: its multiple causes and its effects on dental implants - an updated review". *J Oral Rehabil*, 2006; 33(4): 293–300.
12. Winocur E, Gavish A, Voikovitch M, Emodi-Perlman A, Eli I. Drugs and bruxism: a critical review. *J Orofac Pain*, 2013; 17(2): 99–111.
13. Poveda Roda R, Bagan JV, Díaz Fernández JM, Hernández Bazán S, Jiménez Soriano Y. Review of temporomandibular joint pathology. Part I: classification, epidemiology and risk factors. *Medicina Oral, Patología Oral y Cirugía Bucal.*, 2007; 12(4): E292–8.

14. Johar SQ. A case of sleep bruxism treated through behavioural change using hypnosis. *Med J DY Patil Univ*, 2012; 5: 154-7.
15. Bader G, Lavigne G. Sleep bruxism; an overview of an oromandibular sleep movement disorder. *Sleep Med Rev.*, 2000; 4: 27-43.
16. Nekora-Azak A, Yengin E, Evlioglu G, Ceyhan A, Ocak O, Issever H. Prevalence of bruxism awareness in Istanbul, Turkey. *Cranio*, 2010; 28: 122-7.
17. Kalantzis A, Scully C. *Oxford handbook of dental patient care, the essential guide to hospital dentistry* (2nd ed.). New York: Oxford University Press, 2005; 332.
18. Shetty S, Pitti V, Satish Babu CL, Surendra Kumar GP, Deepthi BC. Bruxism: a literature review. *J Indian Prosthodont Soc.*, 2010; 10(3): 141–8.
19. Bader G, Lavigne G. Sleep bruxism; an overview of an oromandibular sleep movement disorder. *Sleep Med Rev.*, 2000; 4: 27-43.
20. Pierce CJ, Gale DN. A Comparison of different treatments for nocturnal bruxism. *J Dent Res.*, 1988; 67: 597-601.
21. Kohen DP, Mahowald MW, Rosen GM. Sleep-terror disorder in children: The role of self-hypnosis in management. *Am J Clin Hypn*, 1992; 34: 233-44.
22. Santamato A, Panza F, Di Venere D, Solfrizzi V, Frisardi V, Ranieri M, et al. Effectiveness of botulinum toxin type A treatment of neck pain related to nocturnal bruxism: A case report. *J Chiropr Med.*, 2010; 9: 132-7.
23. Alladin A. Cognitive hypnotherapy: A new vision and strategy for research and practice. *Am J Clin Hypn*, 2012; 54: 249-62.
24. Beaumont G. Clobazam in the treatment of anxiety. *Human Psychopharmacology*, 1995; 10: S27-S41.
25. Ramel J, Bhattachara D, Albalwi S, Latreille V, Pavlova M. Effects of clobazam on sleep and daytime function in patients with epilepsy. *Sleep*, 2017; 40(Suppl 1): A433.