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BRUXISM - SYMPTOMS, DIAGNOSIS AND TREATMENT- REVIEW

[1]Christopher Joel Simon, [2]Gayathri, [3]Vinoth Kumar S, *[4]Dhanraj Ganapathy

ABSTRACT

Bruxism is extortionate teeth grinding or jaw clenching. It is an oral parafunctional activity . Etiology of bruxism can be divided into three groups psychosocial factors, peripheral factors and pathophysiological factors. Treatment modalities involve occlusal correction, behavioural changes and pharmacological approach. Bruxism can occur during wakefulness or during sleep. Bruxism during daytime is commonly a semivoluntary 'clenching' activity and is also known as 'Awake Bruxism' (AB) or Diurnal Bruxism (DB). This review was mainly intended to understand the symptoms, diagnosis and treatment of bruxism.

KEYWORDS: *clenching, treatment, epidomology, bruxism, grinding*

I. INTRODUCTION:

Bruxism is extortionate teeth grinding or jaw clenching. It is an oral parafunctional activity (1) . it is unrelated to mundane function such as victualing or verbalizing. Bruxism is a mundane demeanor; reports of prevalence range from 8–31% in the general population. (2) Several symptoms are commonly associated with bruxism, including hypersensitive teeth, aching jaw muscles, headache , and damage to dental instaurations (e.g. crowns and fillings) to teeth.(3) But symptoms may be minimal, without patient vigilance of the condition. There are two types of bruxism one is slumber bruxism and aroused bruxism. Slumber bruxism incline to be worse on waking . Aroused bruxism is more prevalent in females than males where as in slumber bruxism male and females have equal proportion.Children are reported to brux as commonly as adults. It is possible for sleep bruxism to occur as early as the first year of life – after the first teeth (deciduous incisors) erupt into the mouth, and the overall prevalence in children is about 14–20%(15) The ICSD-R states that sleep bruxism may occur in over 50% of normal infants. (16) Often sleep bruxism develops during adolescence, and the prevalence in 18- to 29-year-olds is about 13. (15) The overall prevalence in adults is reported to be 8%, and people over the age of 60 are less likely to be affected, with the prevalence dropping to about 3% in this group. (15).

[1]*Graduate Student, Department of Prosthodontics, Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences, Chennai, India.*
[2]*Assistant professor, Department of Physiology, Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences, Chennai, India.*
[3]*Senior Lecturer, Department of Prosthodontics, Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences, Chennai, India.*
[4]*Professor and Head Department of Prosthodontics, Saveetha Dental College and Hospitals, Saveetha Institute of Medical And Technical Sciences, Chennai – 600077 Tamil Nadu, India.*

A 2013 systematic review of the epidemiologic reports of bruxism concluded 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% of bruxism generally. The review also concluded that overall, bruxism affects males and females equally, and affects elderly people less commonly. (17).

SIGNS AND SYMPTOMS:

A grinding or tapping noise during slumber, sometimes detected by a partner or a parent. This noise can be surprisingly loud and unpleasant, and can wake a slumbering partner. Noises are infrequently associated with aroused bruxism(4) . Tooth fractures can withal can occur damage to the filling renovation can withal occur. Burning sensation on the tongue. Tenderness, pain or fatigue of the muscles of mastication,(4) . Trismus restricted mouth opening . Clicking of temperomandibular joint (5). Inflammation of the periodiodontal ligament of teeth, which may make them sore to bite on, and possibly withal a degree of loosening of the teeth. Exorbitant tooth wear(6) . Categorically attrition , which flattens the occlusal (biting) surface, but withal possibly other types of tooth wear such as abfraction , where notches form around the neck of the teeth at the gumline (7). Bruxism is conventionally detected because of the effects of the process (most commonly tooth wear and pain), rather than the process itself. The sizably voluminous forces that can be engendered during bruxism can have detrimental effects on the components of masticatory system, namely the teeth, the periodontium and the articulation of the mandible with the skull (the temporomandibular joints). The muscles of mastication that act to move the jaw can withal be affected since they are being utilized over and above of mundane function(8). Inflammation of the periodontal ligament of teeth, which may make them sore to bite on, and possibly also a degree of loosening of the teeth. (9)

DIAGNOSIS :

A diagnosis of bruxism is conventionally made clinically, (8) and is mainly predicated 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 teamperomandibular joints. Questionnaires can be acclimated to screen for bruxism in both the clinical and research settings. (5). For tooth grinders who live in same household with other people, diagnosis of grinding is straightforward: Housemates or family members would advise a bruxer of recurrent grinding. Grinders who live alone cuuan likewise resort to a sound-activated tape recorder. To attest the condition of clenching, on the other hand, bruxers may rely on such contrivances as the Bruxchecker. Bruxism is not the only cause of tooth wear. Another possible cause of tooth wear is acid erosion, which may occur in people who drink an abundance of acidic liquids such as concentrated fruit juice, or in people who frequently vomit or regurgitate stomach acid, which itself can occur for sundry reasons. People withal demonstrate a mundane level of tooth wear, associated with mundane function. The presence of tooth wear only denotes that it had occurred at some point in the past, and does not obligatorily designate that the loss of tooth substance is perpetual. People who clench and perform minimal grinding will withal not show much tooth wear. Occlusal splints are conventionally employed as a

treatment for bruxism, but they can additionally be of diagnostic use, e.g. to observe the presence or absence of wear on the splint after a certain period of wearing it at night. Tooth wear may be brought to the person's attention during routine dental examination. With aroused bruxism, most people will often initially gainsay clenching and grinding because they are nescient of the habit. Often, the person may re-attend anon after the first visit and report that they have now become cognizant of such a habit. Bruxism can be subdivided into two types based upon when the parafunctional activity occurs – during sleep ("sleep bruxism"), or while awake ("awake bruxism"). (10).

Psychological intervention

Given the strong association between awake bruxism and psychosocial factors (the relationship between sleep bruxism and psychosocial factors being unclear), the role of psychosocial interventions could be argued to be central to the management. The most simple form of treatment is therefore reassurance that the condition does not represent a serious disease, which may act to alleviate contributing stress.(18). Other interventions include relaxation techniques, stress management, behavioural modification, habit reversal and hypnosis (self hypnosis or with a hypnotherapist). (18) Cognitive behavioral therapy has been recommended by some for treatment of bruxism.(19)In many cases awake bruxism can be reduced by using reminder techniques. Combined with a protocol sheet this can also help to evaluate in which situations bruxism is most prevalent. (20)

TREATMENT:

Bruxism can cause consequential tooth wear if it is rigorous, and sometimes dental renovations (crowns, fillings etc.) are damaged or lost, sometimes perpetually(1) (3) Most dentists consequently prefer to keep dental treatment in people with bruxism very simple and only carry it out when essential, since any dental work is liable to fail in the long term.(1) Dental implants and involute bridgework for example are relatively contraindicated in bruxists. (1)In the case of crowns, the vigor of the renovation becomes more consequential, sometimes at the cost of aesthetic considerations. E.g. a full coverage gold crown, which has a degree of flexibility and withal involves less abstraction (and consequently less debilitating) of the underlying natural tooth may be more opportune than other types of crown which are primarily designed for esthetics rather than durability. Porcelain veneers on the incisors are concretely vulnerably susceptible to damage, and sometimes a crown can be perforated by occlusal wear. Specific drugs that have been studied in sleep bruxism are clonazepam(11) levodopa amitriptyline bromocriptinepergolide, clonidine, propranolol, and l-tryptophan, with some showing no effect and others appear to have promising initial results; however, it has been suggested that further safety testing is required before any evidence-based clinical recommendations can be made.[10] When bruxism is related to the use of selective serotonin reuptake inhibitors in depression, adding buspirone has been reported to resolve the side effect(12) Tricyclic antidepressants have also been suggested to be preferable to selective serotonin reuptake inhibitors in people with bruxism, and may help with the pain. (13). Botox) is used as a treatment for bruxism(13) however there is only one randomized control trial which has reported that Botox reduces the myofascial pain symptoms. (14) This scientific study was based

on thirty people with bruxism who received Botox injections into the muscles of mastication and a control group of people with bruxism who received placebo injections (14)Normally multiple trials with larger cohorts are required to make any firm statement about the efficacy of a treatment. In 2013, a further randomized control trial investigating Botox in bruxism started.(14)There is also little information available about the safety and long term followup of this treatment for bruxism.

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