

Mini Review: Bruxism-An Indication of Temporomandibular Disorder

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Abstract

Bruxism is a parafunctional action categorised by the action of gnashing, crunching and grinding of teeth. Its prominent clinical symptoms are teeth fractures or root fractures, tooth mobility, pain, hypertrophied facial muscles and compact ability to open the mouth upon awaking frequent headaches especially in the temporal muscle region.

Keywords: Stress; Temporomandibular disorder; Bruxism

Introduction

Bruxism is an oral disorder which is associated to the action of gnashing, crunching, scrunching and grinding of teeth during the sleep and awaking and it causes different problem to the oral system which include the pain in jaws, teeth damage (dental problem), facial pain and pain in mind. It is the disorder which is found in every age with different types. This problem has been interested area of study for researchers, dentists, neurological and sleep medicine domains [1].

Types of Bruxism

Bruxism has distinct occurring time. Bruxism occurs in both situations of wakefulness and sleep, during the day time bruxism is called awake bruxism which is a type of semi voluntary clenching likewise Bruxism in sleep is called Sleep Bruxism [2]. There is difference in the measurement of the activity of bruxism during the sleep conditions and during the non-sleep conditions measured by different medical devices. Awake bruxism (the jaw grinding) is reported about 20% founded in adult population and may be caused by factors such as anger, stress and anxiety. When the patient of sleep bruxism does the activity of crunching teeth, he doesn't know until his family members make him know or tell him about the disorder and the result of such disorder is clear which lead to almost problem in facial anatomy. By recent studies it is reported frequent episodes of bruxism occurs during sleep hours. Hereditary factors may be one of the factors associated with sleep bruxism [3]. Sleep bruxism and wake time bruxism is referred to temporomandibular disorder and complains for it is headache, sleep and behavioural negativities. Its symptoms are prominent in 7 to 17 years old population [4].

Sign and Symptoms of Bruxism

The causes of bruxism are burden of responsibilities or work pressure, anxiety, stress, anger and depression, generally found in the adult population with serious consequences such as tooth attrition, tooth sensation, headache, and tooth fracture eventually leading to temporomandibular disorder [5]. Overloading of musculoskeletal tissue and craniofacial causes pain as it triggers more bruxism. Intensity and duration of bruxism can be used to assess the degree of

pain [6,7]. However irregular clenching and grinding are really common they generally place no serious costs for the oral structures. In contrast manifest bruxism can effect in difficulties that are as annoying for the patient as for the treating dentist. Bruxism that have been suggested to include tooth wear, toothache and headaches are clear signs and indications of temporomandibular disorders [8]. Currently pathophysiological aspects of bruxism were under investigation. It is reported that bruxism has been a part of a sleep arousal reaction, controlled by countless neurotransmitters causing troubles in the central dopaminergic system. Psychological factors, social issues, medication, traumas and genetic factors may be involved in the aetiology of bruxism. Still previous findings revealed unclear results and required further investigation [5].

Association with Temporomandibular Disorder

The result of a surveyed revealed a connection between anxiety, depression and bruxism in individuals later identified with temporomandibular disorders [9]. Prolonged episodes of bruxism may lead to temporomandibular disorders causing sleep disturbance and if stress can influence an individual's sleeping pattern then one can predict that stress may incite bruxism which in turn may increase the probability of temporomandibular disorders [10].

Diagnosis of Bruxism

Comprehensive thought other than scientific behinds and additional oral check-ups are necessary for diagnosis of bruxism. In relations of the destruction produced by the disease three features must be detected: The determination of the routine and the time of the stages of clenching and grating. Infantile bruxism may continue into adulthood. Primary diagnosis benefits to offer a view of control to stop the damage to the components of the masticatory system and helps welfare and comfort. It is important that parents pursue help when the irregularity has been recognised. The contribution of parents is major as they can tell the medical history and current medical condition of the child and other family members [11].

Management and Treatment

Bruxism can be treated well by efficient techniques such as the study of bruxism phenomena has taken place structured sleep laboratories

and the patients are observed and monitored for nights in order to understand the various action of this clenching of jaws, physiology system, body movement, brain activity, muscle activity, cardiac function, breathing and to find out the effects in order to introduce effective and successful treatment to it [12]. Rehabilitating a patient with bruxism associated tooth tissue loss to an acceptable standard of oral health is clinically demanding and requires careful diagnosis and proper treatment planning [13].

Conclusion

Bruxism is a far argued clinical issue in dentistry. Even if bruxism is not a life frightening sickness it can affect the value of human life specially concluded dental problems such as tooth wear frequent fractures of dental rebuilding and pain in the ore-facial region.

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