



Young People Are a Key Group for Screening and Monitoring of Bruxism

Olimov S.Sh*.

Bukhara State Medical Institute

Xamraeva Z.U.

Bukhara State Medical Institute

*Correspondence : Olimov S.Sh.

email@gmail.com

Received: 2024, 01 Jan

Accepted: 2024, 28 Jan

Published: 2024, 17 Feb

Copyright © 2024 by author(s)
and Publishing Journals.

This work is licensed under the
Creative Commons Attribution
International License (CC BY
4.0).

[http://creativecommons.org/licenses/by/ 4.0/](http://creativecommons.org/licenses/by/4.0/)



Open Access

Abstract

" Bruxism" comes from the Greek word "brychein", which means "grinding teeth". This term was first introduced by S.Miller in 1938. Prior to this, the term bruxomanie was used in the scientific literature to describe involuntary tooth friction in patients with central nervous system disorders such as meningitis, dementia, and epilepsy.

Introduction

Researchers have tried to identify various forms of Bruxism. So S.Miller actually describes Bruxism as the friction of teeth in a dream, and the concept of "bruxomania" is used by him to refer to the habit of clenching teeth during the daytime. Ramfjord and Ash (1971) consider tooth compression as "centric bruxism", and tooth friction is referred to as "eccentric bruxism". T.A. Gaidarova (2003) developed a classification of dental manifestations of bruxism by stages (latent, manifestations and terminal stage) and severity of the disease (mild, moderate and severe).

Arnold (1981) attributes bruxism to non-chewing parafunctions of the chewing organ. According to the author's definition, this is an activity that includes compression (clenching), grinding or gnashing of teeth (grinding) and is characteristic of every person in one way or another during sleep. Parafunctions of the masticatory muscles are understood as inappropriate,

unconscious, unrelated to chewing, speech and swallowing activities that manifest themselves in the form of spontaneous movements of the lower jaw or teeth clenching.

Skorikova L.A. (2000), E.I. Gavrilov, V.D. Panteleev (1990) also consider bruxism to be one of the varieties of parafunctions of the masticatory muscles. According to the classification of Skorikova L.A., daytime bruxism includes the phenomena of clenching and friction of teeth, tooth tapping and hypertrophy of chewing muscles. Nocturnal bruxism is characterized by compression and friction of teeth. H.R.Muhlemann (1955) divides parafunctions into dental (bruxism) and oral (sucking or biting lips, cheeks, tongue, objects). A.Breustedt (1962) describes several groups of parafunctions. The first group includes parafunctions caused by the work of the chewing muscles, the second group - caused by the activity of the tongue, lips, cheeks. The author also describes hypofunctional parafunction, characterized by a low threshold of arousal, which occurs when exposed to a minimal psychogenic stimulus. Acht (1962) considers parafunctions to be a disease of a psychogenic nature and divides them into static (accompanied by a slight increase in salivation) and dynamic (with strong salivation). The term "bruxomania" is included in the static group of parafunctions. Seferyan (1998) identifies nocturnal, daytime and combined forms of bruxism. According to the author, the disease refers to the parafunctional activity of the muscles that lift the lower jaw.

K.R. Etzel (1991) et al. uses the term "orofascial dyskinesia". Neurologists prefer to consider bruxism as one of the forms of oromandibular dystonia. P.G. Sysolyatin et al. (1997) attribute bruxism to non-articular diseases of the temporomandibular joint associated with damage to the masticatory muscles.

According to ICD-10, bruxism is included in the group of somatoform disorders (class V, mental disorders and behavioral disorders, code F 45.8 - other somatoform disorders).

In the Second International Classification of Sleep Disorders (2005), bruxism is described as an oromotor activity characterized by clenching or grinding (grinding) teeth during sleep. It is usually associated with a micro-activation reaction to the EEG and is usually accompanied by sound. This definition has changed since the first edition of the classification, in which bruxism was defined as parasomnia (abnormal behavior during sleep, without damaging the processes responsible for sleep, and not interrupting sleep). Kato and co-authors (2003) attribute bruxism to parasomnia and parafunctional activity during sleep, which is characterized by teeth clenching (tonic activity) and/or repetition of phases of muscle activity (phasic activity), which lead to gnashing of teeth.

In 2008, the American Academy of Orofacial Pain defined bruxism as day and night unconscious parafunctional activity involving clenching and grinding of teeth. According to S. Sato and R. Slavicek (2004), bruxism is a kind of stress release valve in the human body. This condition does not require treatment, but only the elimination of negative dental consequences.

The term Bruxism is widely used in modern Russian and foreign literature. Unfortunately, not all researchers use the international classification of diseases, introducing a different terminology. Thus, to denote unconscious compression of teeth, a number of authors use the

terms "parafunction of the masticatory muscles", "occlusive neurosis", "bruxomania", "traumatic neuralgia", "stridor dentinum".

Many descriptions and classifications only reflect the variety of etiological factors that lead to the emergence of bruxism. To date, it has not been clarified whether bruxism is an independent nosological unit or only a symptom of a general somatic disease. The opinions of scientists on this issue are multifaceted and sometimes contradictory.

We share the point of view of Slavicek R., Sato S. (2004), who consider bruxism as a necessary stress management function for the body (stress management function) and a preventive remedy for stress-related diseases. However, if the function controlling stress leads to various kinds of damage to tissues and body systems, it cannot be considered a function, and therefore refers to parafunction. In this regard, in our opinion, there is a need to separate such concepts as "brooks behavior" - a normal stress management function for the body and "bruxism" - a parafunctional activity.

According to a number of authors, the prevalence of bruxism ranges from 5 to 80%. This variability of data is primarily due to the lack of a unified terminology of Bruxism. In addition, in large-scale studies at the population level, epidemiological analysis is carried out on the basis of available information - these are questionnaires and questionnaires, since diagnostic methods with high sensitivity and specificity are expensive and not always available. For example, when conducting a representative cross-sectional telephone study using a clinical questionnaire for the presence of bruxism, which involved 13057 people from Germany, Italy and the United Kingdom, it was found that at least 8.2% of the interviewees grind their teeth during sleep.

A.P. Zaligyan (1976) revealed bruxism in 27.6% of children and 5.3% of adults during dental examinations. O.Y. Khorev, when examining children from 5 to 17 years old, found that the peak incidence was from 7 to 9 years (16.4%). The percentage of occurrence of parafunctions of the masticatory muscles according to N.Yu. Seferyan is 17.0% in preschool children, 10.6% in schoolchildren, 7.5% in adolescents and 8.8% in adults. According to C.M. Fonseca, R.L. Consani, J.F. dos Santos (2011), if bruxism is noted in children, then this disease will persist into adulthood.

Kaushik et al. (2009) revealed a decrease in the symptoms of bruxism during adulthood, up to their disappearance. However, T.A. Gaidarova found an increase in the incidence of this pathology with age in persons of both sexes. Thus, clinical signs of bruxism in young people under the age of 15 occur in 19.3% of cases, and in people over 60 years of age - on average in 70.1%. In turn, D. Manfredini and co-authors, on the contrary, diagnosed a decrease in the prevalence of the disease with age. M. Bellini, I. Marini, V. Checchi (2011) in their research found that in adults, the incidence of parafunctions of the masticatory muscles ranges from 6% to 20%. A.D. Flavio (2009) found that tooth friction is constantly present in 1-3% of people and can occur in both children and adults.

In individuals with temporomandibular joint dysfunction, the incidence of bruxism increases to 70%.

The literature describes a direct relationship between bruxism, the state of the nervous system and the characterological characteristics of the personality. Thus, among patients in the department of neuroses and borderline conditions, L.A. Skorikova revealed the presence of parafunctions of the masticatory muscles in 76.2% of the examined patients. At the same time, women (67.3%) are affected twice as often as men (31.7%).

Studies by Shetty et al. (2011) have shown that women are more susceptible to daytime bruxism, while nocturnal bruxism is equally common among both women and men. No difference in the incidence of the disease between the sexes was found by other authors.

The presence of bruxism is associated with the peculiarities of professional activity. Professions associated with a state of high tension demonstrate high prevalence rates of the disease. Thus, the prevalence of bruxism in military pilots is 69%, and in non-pilot officers, signs of the disease occur only in 27% of cases. Episodes of compression and friction of teeth are often observed in students. During the session, episodes of active bruxism increase from 13.7% to 21.7% and from 9.2 to 14.8%, respectively. The dental profession is also considered one of the most stressful professions for health. According to some authors, representatives of this profession are more susceptible to stress than others. Orthodontists and orthopedists are in the first place among dentists in terms of the degree of exposure to adverse factors that cause stress in the body (stress factors).

Parafunctions of the masticatory muscles can be detected throughout a person's life. The frequency of the disease is characterized by wide variability. Thus, the study of the prevalence of parafunctions of the masticatory muscles requires clarification.

LITERATURE USED

- РеАболмасов, Н.Н., & Гелетин, П.Н. (2010). Избирательное пришлифовывание зубов. Смоленск: С.160.
- Артемова, Н.М., & Везенова, И.В. (2013). Стимуляционная электромиография: учебное пособие для врачей. Рязань: РИО РязГМУ. С.80.
- Баданин, В.В. (2000). Нарушение окклюзии - основной этиологический фактор в возникновении дисфункций височно-нижнечелюстного сустава. *Стоматология*, 1, 51-54.
- Безвестный, Г.В., & Лопухова, Н.Б. (2007). Применение гнатологических принципов стоматологической практике. В *Материалы XVII - XVIII Всероссийских научно-практических конференций и I Общевропейского стоматологического конгресса* (стр. 228-230). Москва.
- Виргунова, Т.В. (2013). Бруксизм у лиц молодого возраста: особенности клиники, диагностики и лечения: Автореф. дис к.м.н. Тверь. 27 С.
- Гаврилов, Е.И., & Пантелеев, В.Д. (1987). Клинические формы парафункции жевательных мышц. *Стоматология*, 66(4), 40-43.

- Гончаренко, А.Д. (2004). К вопросу о взаимосвязи окклюзии с различными функциями организма. В Материалы XII и XIII Всероссийских научно-практических конференций и IX съезда Стоматологической Ассоциации России (стр. 239-240). Москва.
- Пузин, М.Н. (2002). Диагностика и лечение болевой дисфункции височно-нижнечелюстного сустава в условиях специализированного нейростоматологического кабинета. Российский стоматологический журнал, 2, 28-30.
- Залигян, А.П. (1998). Этиология, клиника и лечение бруксизма у взрослых. Методические рекомендации. Ставрополь. С.16.
- Трезубов, В.Н. (2005). Изучение нейромышечных нарушений у больных с расстройствами височно-нижнечелюстного сустава, осложненных парафункциями жевательных мышц. Клиническая стоматология, 4, 85-89.
- Казаков, С.К., & Братко, Р.О. (2004). Диагностика и ортопедическое лечение нарушений функциональной окклюзии. В Материалы XII и XIII Всероссийских научно-практических конференций и IX съезда Стоматологической Ассоциации России (стр. 245-246). Москва.
- Каламкаров, Х.А. (1994). Нарушения функции жевательных мышц и височно-нижнечелюстных суставов при патологической стираемости зубов. Стоматология, 73(3), 49.
- Логинова, Н.К., & Логацкая, Е.В. (2006). Влияние жевательной резинки на кровоснабжение жевательных мышц. Стоматология, 3, 8-10.
- Защихин, Е.Н. (2012). Оценка эффективности ортопедического лечения пациентов при синдроме жжения языка, обусловленном дисфункцией височно-нижнечелюстного сустава. Российский стоматологический журнал, 2, 32-35.
- Пантелеев, В.Д. (1988). Особенности протезирования дефектов зубных рядов у больных с парафункциями жевательных мышц. Калининград. С.24.