

Knowledge and Awareness Regarding Bruxism and its Management in Dakshina Kannada Population

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Abstract

Bruxism is defined as a ‘repetitive jaw-muscle activity characterized by clenching or grinding of the teeth and/or by bracing or thrusting of the mandible’ with ‘two distinct circadian manifestations; either occurring during sleep (sleep bruxism) or during wakefulness (awake bruxism).’ Bruxism may lead to masticatory muscle hypertrophy, tooth surface loss, fracture of restorations or teeth, hypersensitive or painful teeth and loss of periodontal support. A sample of 100 patients were selected for a questionnaire study to assess the knowledge and awareness regarding bruxism and its management. The results showed that there was an overall lack of awareness in the population. Knowledge and awareness should thus be provided to the population to ascertain early treatment and less discomfort to the patients having signs and symptoms of bruxism.

Keywords: bruxism, knowledge and awareness, bruxism management.

Introduction

Bruxism was adopted from ‘La bruxomanie’, and is used to describe gnashing and grinding of the teeth occurring without a functional purpose.¹ According to Glossary of Prosthodontics, bruxism is an oral habit consisting of involuntary rhythmic or spasmodic non-functional gnashing, grinding, or clenching of teeth, in other than chewing movements of the mandible, which may lead to occlusal trauma. It can occur during wakefulness, known as diurnal bruxism or in sleep; known as nocturnal or sleep bruxism.²

Various research studies have found that prevalence of bruxism ranges from 5-20% in adult population. Most of the subjects are unaware of them being affected by this disorder. It is usually first recognised by the Dentist, as most subjects are unaware regarding its signs and symptoms. Presence of tooth wear, fractured restorations/ teeth, pain in the masticatory muscles or pain in the temporomandibular joint may be signs seen by the dentist. At times, patient may also consult a physician for episodes of atypical jaw pain or headache.

In literature, there are various etiologic factors which have been reported for bruxism. These include peripheral factors such as tooth interference in dental occlusion; psychosocial influences such as stress or anxiety; central causes involving brain neurotransmitters or basal ganglia.³

Materials and Method

Study sample consist of 100 patients selected from the OPD of Department of Prosthodontics. A self-explanatory questionnaire was given to the subjects to collect the data. Prior to data collection informed consent

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was taken from all the subjects. Of 100 questionnaires distributed, all 100 were received back, and were considered valid for the study.

Results:

The questionnaires analysed 100 patients. The following conclusions were made from the answers provided.

63% have heard about clenching/bruxism and most of them heard it from their relatives(71.4%) & dentists(22.9%)

11% of the patient clenched their teeth,62% dint clench and 27% weren't aware if they clenched their teeth. Nevertheless, 17% had morning soreness in the jaw . 22% had headache in the morning .

91% of the patients weren't aware if they were clenching during the day.

The following figures show other results concluded from the answers.

7. Do you know the causes/factors responsible for Bruxism?
100 responses

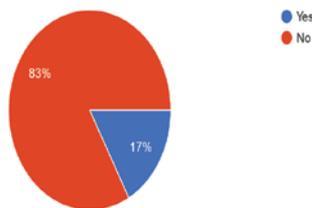


Figure 1: Knowledge about the causes of bruxism.

If yes, then which factors do you think is/are responsible?
17 responses

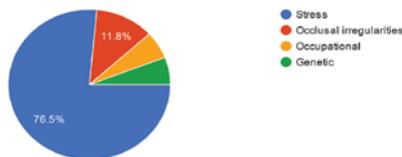


Figure 2: Factors responsible for bruxism according to responders

If yes, then what are the effects of grinding of teeth?
15 responses

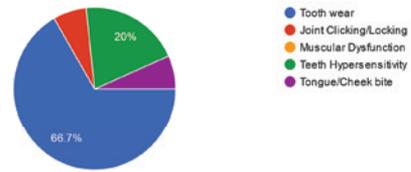


Figure 3: Effects of bruxism according to responders

Even though the patients dint know about the various treatment plans availbale most of them knew that they should seek treatment and should consult a dentist for treatment.

Around 6% sought treatment and had a successful outcome based on their response.

Discussion

Bruxism is characterised by clenching or grinding of the teeth due to contraction of the masseter, temporalis and other jaw muscles. Bruxism may lead to masticatory muscle hypertrophy, tooth surface loss, fracture of restorations or teeth, hypersensitive or painful teeth and loss of periodontal support. Sleep bruxism has previously been viewed as a dysfunctional movement or pathological condition, whereas it is now accepted as a centrally controlled condition with various systemic risk factors.⁴

The excessive forces on the teeth can contribute to alveolar bone resorption, which may be visible radiographically as generalised widening of the periodontal ligament space, and increased mobility which may be transient or permanent

A diagnosis of sleep bruxism may be made via patient report and clinical interview, clinical examination, intraoral appliances or recording of muscle activity. This epidemiological study was conducted on 100 subjects to assess knowledge and awareness regarding bruxism and its management among Dakshina Kannada population.

When asked the subjects if they have heard the terms teeth grinding/ clenching/ bruxism, out of 100 subjects only 37 subjects responded yes which depicts that majority of the population is not even aware of these terms.

Out of the 37% subjects, it was found that the majority, i.e, 71% have heard it from a relative while only 22% have heard it from a dentist.

To assess if the subjects knew the causes and factors or effects of Bruxism, it was found that 83% and 85% subjects were not aware regarding the above, respectively.

Management for bruxism is only indicated where problems arise causing patient various difficulties. Oral appliances primarily aim to protect the dentition from damage caused by clenching/grinding, although they may reduce muscle activity. Irreversible occlusal adjustments have no evidence in the management of bruxism. Behavioural strategies include biofeedback, relaxation and improvement of sleep hygiene. Administration of botulinum toxin (Botox) to the masticatory muscles appears to reduce the frequency of bruxism, but concerns have been raised regarding possible adverse effects.⁵

To assess the awareness among the subjects regarding the need for treatment of bruxism, out of 100 subjects, 66% subjects knew that bruxism requires treatment. While 95% subjects were unaware regarding the various treatment options of bruxism.

It was also observed that if patients suffered from any aforementioned symptoms, 81% preferred consulting a physician in comparison to a dentist.

This causes the delay in identification of signs and symptoms of bruxism and thus further delay in the treatment also.

According to this study it was observed that there was overall lack of knowledge and awareness among the population regarding bruxism and its management in the considered population. It is essential for both, the patients and the dentists to be aware of the potential aetiology, pathophysiology and management strategies

of sleep bruxism. Also, to ascertain the treatment at the earliest it is crucial to make the population aware. This can be done by conducting various local awareness programs which may help people to understand bruxism and its associated problems. With the aid of print and digital media, this knowledge and awareness can also be spread to a larger population.

Conclusion

Based on the results of the above study it was observed that there is lack of knowledge and awareness among the Dakshin Kannada population regarding Bruxism and its management. It should be ensured that the population is made aware of the various causes and factors and management strategies of Bruxism via a suitable aid.

Conflicts of Interests: Nil

Source of Fund: self

Ethical Clearance: taken from institutional committee

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