

Main Considerations On The Exostosis and Torus: Brief Review

Review Article

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Patients with exostosis (bony nodules on the vestibular face of the mandible bone) and mandibular torus (bony nodules on the lingual face of the mandible bone) frequently present in bruxism, but not all patients with bruxism present torus. With the strong relation between bruxism and anxiety already consecrated in the literature, the idea arose that the anxiety could have some participation in this process. Patients with torus present more frequently dental tightness, anxiety, TMD (temporomandibular disorder) or bruxism. The presence of torus and its size may be related to parafunction. In the literature there are torus in both sexes. It is evident in adulthood between 20 and 30 years and is rare in children younger than 10 years.

Keywords: Exostosis; Torus; Bruxism; Treatments.**Introduction**

According to some authors, torus and exostosis are lumps of mature bone, thus defined as benign, well-defined bone changes of slow, painless growth usually without clinical interurrences [1, 2]. However, in special cases they may interfere with diction, chewing, swallowing, or making a prosthesis, so there will be an indication of surgical removal [2, 8, 13, 17].

Bruxism is a common disease of common occurrence in both sexes and in all age groups [3]. Its etiology is complex and controversial, but most authors agree that it is usually multifactorial or associated with local, systemic, occupational, genetic and psychological factors [9].

Patient susceptible to dental disorder, have occlusal disorders and others of systemic origin that induce the development of parafunction, which can cause loss of dental structure without presence of caries and dental manifestations, attrition, erosion, abfraction, corrosion, hypersensitivity, pulpitis, dental dysfunction and crown fractures, roots or restorations [1, 2]. The loss of tooth structure is varied and multifactorial [10].

The present work aimed to report the main importance of the torus and exostoses through a literary review.

Methods

Experimental and clinical studies were included (case reports, retrospective, prospective and randomized trials) with qualitative and/or quantitative analysis. Initially, the key words were determined by searching the DeCS tool (Descriptors in Pubmed, Health Sciences, BIREME base) and later verified and validated by MeSh system (Medical Subject Headings, the US National Library of Medicine) in order to achieve consistent search.

Mesh Terms

The words were included "Torus Palatinus", "Torus Mandibularis" and "Buccal Exostosis". The literature search was conducted through online databases: Pubmed, Periodicos.com and Google Scholar. It was stipulated deadline, and the related search covering all available literature on virtual libraries.

Series of Articles and Eligibility

A total of 60 articles were found involving treatment by conscious dental sedation. Initially, it was held the exclusion existing title and duplications in accordance with the interest described this work. After this process, the summaries were evaluated and a new exclu-

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sion was held. A total of 29 articles were evaluated in full, and 22 were included and discussed in this study.

Literature Review and Discussion

The term torus was introduced by Keeper and Bessl in 1879 [1]. Its etiology has been considered multifactorial and is attributed to genetic, environmental factors, masticatory hyperfunction, dental tightening, stress, and continuous growth [2, 8, 13]. Torus and exostoses are considered developmental anomalies that appear around the age of 20 years, being more evident in middle-aged people [2, 17]. It is believed that palatine torus is more evident in females and mandibular torus in males [2].

They are rare in children younger than 10 years. The mean age of patients with torus is between 43 and 66 years, 60.0% female and located in the mandible [2, 7].

Bruxism is a functional habit with 3 forms: dental tightening (more frequent during the day), creaking (usually nocturnal) and dental beat (uncommon, are continuous and rhythmic). Patients with bruxism are 4 times more likely to present torus than patients without bruxism [2, 3]. According to the authors, the mandibular torus can be formed by the impact of forces on the cusps and the transmission of forces from the palatine face of the upper tooth to the lingual aspect of the inferior [19, 20]. Other authors suggest that masticatory stress may be the major cause of torus development [7].

Orthopedic Surgery [1].

The main oral manifestations are:

- Dental manifestations: attrition, erosion, abfraction, hypersensitivity, pulpites and fractures of crowns and roots or restorations.
- Periodontal manifestations: mobility, bone destruction, transient periodontia (morning pain to percussion or mastication that disappears throughout the day).
- Muscular manifestations: muscular hypertonicity, myositis, myalgia, hypertrophy and functional limitation.
- Joint manifestations: joint pain, movement restriction, joint noise.

Treatment

Satisfactory treatment requires multidisciplinary treatment [1-3]. The treatment may require the use of sinter-occlusal miorelaxantes plate, physiotherapy, acupuncture, orthodontics, prosthesis, medications, therapies, occlusal adjustments or even surgical [3, 17-19].

The myorelaxant plate attempts to decrease muscle hyperactivity, stabilize the mandible, decompress the temporomandibular joint [15-18]. The plate should be mounted on a semi-adjustable articulator and perform an occlusal adjustment so that the treatment is executed safely and functionally [18-22].

Eggen et al., [3-5] concluded that the etiology of exostosis is multifactorial including genetic factors. Other authors suggest that it involves mineral bone density and a lower risk for osteoporosis. Nakamura et al., [14] found statistically significant relationships

between the presence of mandibular torus, exostosis and parafunction (by tightening).

Conclusion

It has been concluded that witch doctors are more anxious than people who do not practice bruxism, the grinding or grinding of teeth can be a means of alleviating frustrations and tensions, which can cause the formation of torus and exostoses. But more studies are needed to establish the conclusive relationship.

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