Prevalence and Pattern of Oral Tori Among Patients Visiting Diamond Dental Hospital - Alban

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Article

Prevalence and Pattern of Oral Tori Among Patients Visiting Diamond Dental Hospital - Alban

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Abstract: Tori are bony growths in the mouth caused in general by genetic and environmental factors. Oral tori may grow over time and interfere with oral hygiene, speech, mastication and the application of dentures. The aim of this study is to evaluate the prevalence and patterns of torus mandibularis and torus palatinus according age and gender among patients attending the Diamond Dental Hospital in Tirana. **Methodology.** A case-series study conducted at DDH from February 1-30 April 2024. Written consent was taken from each participant and the questionnaire comprises some variables. The patients were examined intraoral only by one examiner and were taken photos from participants having positive findings. **Results.** The prevalence of oral tori in Albania was very high 48.4% and the peak incidence was 18-29 age group (54.2%). The most common type was TM 39.3%. The most prevalent form for TP was flat (71.4%) and for TM was solitary bilateral (47.9%). **Conclusions.** The prevalence of oral tori was found to be very high and not related to gender or bruxism. Dental professionals should be aware of the high occurrence of oral tori and their importance in dental practice. Nevertheless, further assessment of the prevalence of tori in a larger sample is required.

Keywords: torus mandibularis; torus palatinus; prevalence; pattern

1. Introduction

Oral tori are non-pathologic self-limiting anatomical bony protuberances that typically appear on the alveolar surfaces of the human jaws and it is commonly found in long bones where tendons and muscles are placed [1,2]. Tori may show up alone on one or both jaws at once and might be unilateral or bilateral. They are made up of dense cortical bone structure and a little quantity of bone marrow [3].

Oral tori have a complex etiology, which comprises mostly genetic and environmental variables [4]. Different researchers have discovered numerous predisposing factors. Some of them emphases that calcium supplements, low level of vitamin, bruxism, teeth deficiencies, infection, drugs (such as phenytoin), may cause alveolar exostosis [5,6,7,8,9]. Whereas few researchers think that tongue push and thumb sucking may play a role on oral tori development because of high pressure [10]. Tori may develop during pathologically increased mechanical loads as reaction of traumatic occlusal forces [1].

The tori usually appearing in the mouth in the second or third decade of life [5]. They may be found during routine clinical examination of the patient, because in general the small size of oral tori doesn't cause any complain. During gradual growing process of oral tori patients have no pain, but when oral tori increase their size they may be a problem for both patient and dentist. So, they can interfere not only on the production of dentures [11], but even on phonetic [12], limited tongue movements [13], deglutition, mastication [14], increasing the risk for temporomandibular disorder and may lead to poor aesthetic and obstructive sleep apnea, which may result in fatal event [15,16]. Moreover, increased size of oral tori inhibits the adequate oral hygiene, bringing the food towards

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the teeth during mastication, causing periodontal diseases. Oral tori also may cause difficulties during intra oral films placement [17]. For these reason the radiographic features of the lower premolars and maxillary sinuses are difficult to see [18]. Oral tori also may cause difficulties during laryngoscopy and endotracheal intubation during general anaesthesia [19]. The tori cover by thin layer of poorly vascularized oral mucosa, which make them more prone to ulceration, especially when patient have problems with fitting dentures or in patient that receive bisphosphonates [20]. When growth of tori causes the above problems, surgical intervention is indicated [10,21].

Sometimes oral tori may be present in both jaws and vary according their shapes and size. When oral tori are big in size, they present a clinical difficulty for the clinician, because they interfere on taking correct impression for bridges or mobile dentures. By knowing their features, the clinician can plan the best method for denture production.

Oral tori are defined as non-tender alveolar exostosis. They may be developed on an upper and/or lower jaw and based on their location are referred as torus mandibularis (TM), torus palatinus (TP and alveolar bone exostoses (ABE) [1]. All of them are histologically the same with each other [22] and the same with normal compact bone [7]. For these reasons they may be use for regenerative purpose as autogenous bone graft [23]. Additionally, Tori has been linked with the field of forensic anthropology to identify human remnants [24].

Torus mandibularis may be present on the lingual aspect of the mandible and can be found in both dentulous and edentulous patients. It is localized above the mylohyoid ridge and usually extends to the canine and premolar region. It is thought that torus mandibularis may be formed because of increased occlusal forces during parafunctional activity [1]. It may appear only in one or both side of the mandible and can be classified furthermore as unilateral and bilateral solitary, unilateral and bilateral multiple, and bilateral combined [4]. Torus mandibularis grows slowly and can stop on its own in the absence of teeth [7]. In some case torus mandibularis expand in size so that opposite TMs can contact in the midline [25,26]. In this situation the patient has difficulty not only during speech and phonation [27], but even on application of the dentures.

Torus palatinus is a nodular or sessile mass of bone that develop at the midline of palate, involving the processi palatini and the oss palatinum [28]. Its size varies in different cases. Sometimes it may be very small, and in other cases it may grows so much that it occupies the entire palate. Torus palatinus classified according on their shape on flat, spindle-shaped, nodular, and lobular [4], and according on their size, as small (less than 3 mm), medium (3–6 mm), and large (more than 6 mm) tori [29].

Alveolar bone exostoses may develop also on the buccal or labial side of both jaws, typically in the distal regions, usually in the premolar and molar areas. Also they may develop on the palatal surface of the maxilla in the molar region. When ABE compared to tori, they are less common [22].

In general diagnosis of alveolar exostosis is make by clinical and radiological examination [14]. In most of cases biopsy is not required, but differential diagnosis should be done with unilateral or fast-growing bony lesions such as osteoma, peripheral ossifying fibroma, osteochondroma, osteosarcoma and osteoblastoma [30] and when patient associated with other clinical signs such as paresthesia or pain [31]. In most of cases there is no particular care needed, although regular surveillance is necessary.

The occurrence of oral tori varies widely across countries and races [32,33]. There has also been some observation of prevalence in terms of age, gender and ethnic group [28,34,35,36,37]. Research indicate that Asians have a higher prevalence, while Blacks (16%) and Whites (8%) have the lower rates [10]. In one study [38], there were no significant differences in the prevalence of oral tori between gender. Whereas other studies [39,40] showed that prevalence of oral tori was greater in females than in males.

Many studies show that prevalence of tori varies in different country. No evidence has been found in the international literature investigating the prevalence of tori in Albanian patients. Therefore, the aim of this study was to determine the prevalence of oral tori, their pattern and distribution on both gender on Albanian patients visiting Diamond Dental Hospital, Tirana, Albania.

2. Materials and Methods

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This case-series study was carried out at the Diamond Dental Hospital (DDH) in Tirana, Albania from February 1- 30 April 2024. Ethical approval to conduct the study was obtained from the Council of Ethics UMT, No. 375/1. Written informed consent was taken from all the participants included in the study.

The present study comprised adult subjects aged >/= 18 years old. Subjects were categorized based on their gender and were classified into 6 age-groups, 18-29, 30-39, 40-49, 50-59, 60-69, 70-79 years. All participants were examined intraoral only by one trained research to prevent inter-observer bias.

Inclusion criteria.

All dental patient visiting DDH over 18 years of age regardless their gender who came for visit and agreed to participate in this study.

All patient belonged to Albanian ethnicity.

All dentulous and edentulous patients.

Patients with no history of orthodontic treatment.

Exclusion criteria.

The patients who did not give consent to be part of the study.

Patients with questionable tori.

Patients which were underwent surgical intervention of the maxilla or mandible for tumors or fracture and incomplete healing of them.

Patients with soft tissue growth/hyperplasia in both jaws.

Patients belonged to other ethnic group from Albanian.

Data collection:

Clinical examination was done on dental chair at DDH under artificial light and were used sterilized mouth mirrors. The presence of oral tori was determined visually and by palpation during clinical examination. The patients were interviewed by one trained research and all demographic data (age, gender) and information about level of vitamin D, level of Ca and the presence of bruxism were recorded by an assistant. This investigation lasted for three months.

A clinical examination of torus palatinus, torus mandibularis and alveolar bone exostosis was done respectively by checking with the index finger in the middle of the palate, sublingual part of the mandible, and buccal and lingual aspect of distal regions for both jaws, finding for any bony exostosis. All result of the test was recorded as present or absent of oral tori.

Bony prominences in the middle of the palate were analyzed and were recorded by their shapes as flat, spindle-shaped, nodular or lobular tori. Whereas TM was recorded as unilateral solitary, bilateral solitary, unilateral multiple, bilateral multiple, or bilateral combined.

Data analyses:

Data analysis was performed using SPSS 26.0 (Statistical Package for the Social Sciences, version 26). Frequencies and percentages were calculated for categorical variables, while measures of central tendency and dispersion were determined for numerical variables. Group comparisons were conducted using the Chi-square test. A p-value <0.05 was considered statistically significant.

3. Results

From a total of 122 patients that participated in this study, 37% of them were male and 63% females (Table 1). The age range was 18-79 years and the mean age was 32.3±12.7 years. The prevalence of oral tori (TM, TP and ABE) was 48.4% (59 out of 122 patients). The occurrence of TM was 39.3%, TP was 11.5% and ABE 13.1%.

Table 1. General characteristics.

	Frequency (%)
Gender F/M	77/45 (63.1/36.9)
Mean age (in years ± SD)	32.3±12.7 [Me=19.2 IQR=12]
Presence of oral tori	59 (48.4)
Torus Mandibularis (TM)	48 (39.3)

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Torus palatinus (TP)	14 (11.5)
Alveolar bone exostoses (ABE)	16 (13.1)

Me - median; IQR – interquartile range.

From 59 patients with oral tori, 24 (40.7%) were male, and 35 (59.3%) were female.

Table 2. The distribution of oral tori in relation to gender.

	With oral tori n=59 (%)	**Without Oral tori n=63 (%)**	**Total n=122 (%)**
Male	24 (40.7)	21(33.3)	45 (36.9)
Female	35 (59.3)	42 (66.7)	77 (63.1)

Percentages are calculated in columns.

The distribution of oral tori varied according to their location and gender (Table 3). The prevalence of torus mandibularis only was 59.3%, where 54.3% was in female and 66.7% was in male. Torus palatinus only was 11.9%, where 14.3% was in female and 8.3% was in male. Alveolar bone exostosis was 6.8%, where 2.9% was in female and 12.5% was in male. All pattern of oral tori, TM, TP and ABE was in 10.2%, where 14.3% was in female and 4.2% was in male. The combination of TM and ABE was 10.2%, where 11.4% was in female and 8.3% was in male, and the combination of TM and TP was 1.7%, where 2.9% was in female and 1.7% was in male. No patient showed the combination of TP and BE. There was no statistically significant difference between gender and location of oral tori.

Table 3. The distribution of oral tori in relation to their location and gender.

Oral tori	Female, n=35 (%)	Male, n=24 (%)	Total, n=59 (%)	p-value*
Torus Mandibularis only	19 (*54.3*)	16 (*66.7*)	35 (*59.3*)	0.635
Torus palatinus only	5 (*14.3*)	2 (*8.3*)	7 (*11.9*)	0.332
Alveolar bone exostoses only	1 (*2.9*)	3 (*12.5*)	4 (*6.8*)	0.063
Torus mandibularis, torus palatinus and alveolar bone exostosis	5 (*14.3*)	1 (*4.2*)	6 (*10.2*)	0.311
Torus mandibularis and alveolar bone exostosis	4 (*11.4*)	2 (*8.3*)	6 (*10.2*)	0.263
Torus mandibular and torus palatinus	1 (*2.9*)	0 (*0.0*)	1 (*1.7*)	0.745
Torus palatinus and alveolar bone exostosis	0 (*0.0*)	0 (*0.0*)	0 (*0.0*)	-

Percentages are calculated in columns; * Hi-square.

Table 4 shows the occurrence of oral tori according to age-group. The youngest age group (18-29 years old) had greater numbers of oral tori reported (54.2%). The second age-group with high prevalence of tori (30.5%) was 30-39 years old, which followed by 40-49 age-group with 11.9%. Lower value of oral tori prevalence showed 50-59 age-group and 70-79 age-group with only 1.7%. There was no statistically significant difference between the age-groups and the presence of oral tori.

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Table 4. The distribution of oral tori in relation to age-group.

Age-groups (years)	With oral tori, n=59 (%)	Without oral tori, n=63 (%)	Total, n=122 (%)	p-value*
18-29	32 (54.2)	36 (57.1)	68 (55.7)	0.104
30-39	18 (30.5)	11 (17.5)	29 (23.8)	0.093
40-49	7 (11.9)	5 (7.9)	12 (9.8)	0.262
50-59	1 (1.7)	5 (7.9)	6 (4.9)	0.052
60-69	-	4 (6.3)	4 (3.3)	0.055
70-79	1 (1.7)	2 (3.2)	3 (2.5)	0.772

Percentages are calculated in columns; *Hi-square.

Table 5 shows the distribution of all types of oral tori in relation to age-groups and gender. Most of the oral tori were present to 18-29 age group, where TM was 56.3% (72.4% in female and 31.6% in male), TP was 42.9% (36.4% in female and 66.7% in male) and ABE was 62.5% (60% in female and 66.7% in male). The prevalence of oral tori in 30-39 age-group was 27.1% for TM (13.8% in female and 47.4% in male), 42.9% for TP (54.6% in female and none male) and 25% for ABE (20% in female and 33.3% in male). The occurrence of oral tori in 40-49 age-group was 12.5% for TM (10.3% in female and 15.8% in male), 14.3% for TP (33.3% in female and 14.3% in male) and 12.5% for ABE (20% in female and none male). Out of 50-59 age group, the only oral tori present was TM 2.1% (female 3.5%). The same result was seen to 70-79 age group, where TM was 2.1% (male 5.3%). No patient belonged to 60-69 age group with oral tori.

Table 5. The distribution of TM, TP and ABE according to age-groups and gender.

Age-groups (years)	Torus mandibularis (TM)			Torus palatinus (TP)			Alveolar bone exostoses (ABE)		
	Female n=29 (%)	Male n=19 (%)	Total n=48 (%)	Female n=11 (%)	Male n=3 (%)	Total n=16 (%)	Female n=10 (%)	Male n=6 (%)	Total n=16 (%)
18-29	21 (72.4)	6 (31.6)	27 (56.3)	4 (36.4)	2 (66.7)	6 (42.9)	6 (60.0)	4 (66.7)	10 (62.5)
30-39	4 (13.8)	9 (47.4)	13 (27.1)	6 (54.6)	-	6 (42.9)	2 (20.0)	2 (33.3)	4 (25.0)
40-49	3 (10.3)	3 (15.8)	6 (12.5)	1 (9.0)	1 (33.3)	2 (14.3)	2 (20.0)	-	2 (12.5)
50-59	1 (3.5)	-	1 (2.1)	-	-	-	-	-	-
60-69	-	-	-	-	-	-	-	-	-
70-79	-	1 (5.3)	1 (2.1)	-	-	-	-	-	-

Percentages are calculated in columns.

Table 6 shows the distribution of different pattern of oral tori in relation to gender. Out of 14 patients with TP (11.5%), 11 were female (14.3%) and 3 were males (6.7%). The most common shape was flat and was appear in 7 females (63.6%) and 3 males (100%), spindle-shaped was present only in 2 females (18.2%), nodular form wasn't present in any case and lobular form was present only in 2 females (18.2%), like spindle-shaped. There is no significant difference between pattern of TP and gender (p=0.466).

Out of 48 patients with TM (39.3%), 29 of them were female (37.7%) and 19 were males (42.2%). The most common pattern was solitary bilateral, 17 females (58.6%) and 6 males (31.6%). Solitar unilateral form was 16.7%, 13.8% in female and 21% in male; multiple unilateral form was 2.1%,

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present only in one male (5.3%); multiple bilateral form was present in 12 patients (25%), 20.7% in female and 31.6% in male, and bilateral combined form was present in 4 patients (8.3%), 6.9% in female and 10.5% in male. There is no significant difference between pattern of TM and gender (p=0.359).

Alveolar bone exostosis was present in the same percentage in both gender (13.3% in males and 13.0% in females), with no significant difference between them (p=0.968).

Table 6. The distribution of different pattern of oral tori according to gender.

Gender / Oral Tori	Female n=77	Male n=45	Total n=122	p-value*
Torus palatinus	11 (14.3)	3 (6.7)	14 (11.5)	0.466
Flat	*7 (63.6)*	*3 (100.0)*	*10 (71.4)*	
Spindle-shaped	*2 (18.2)*		*2 (14.3)*	
Nodular				
Lobular	*2 (18.2)*		*2 (14.3)*	
Torus mandibularis	29 (37.7)	19 (42.2)	48 (39.3)	0.359
Solitar unilateral	*4 (13.8)*	*4 (21.0)*	*8 (16.7)*	
Solitar bilateral	*17 (58.6)*	*6 (31.6)*	*23 (47.9)*	
Multiple unilateral		*1 (5.3)*	*1 (2.1)*	
Multiple bilateral	*6 (20.7)*	*6 (31.6)*	*12 (25.0)*	
Bilateral combined	*2 (6.9)*	*2 (10.5)*	*4 (8.3)*	
Alveolar bone exostosis (ABE)	10 (13.0)	6 (13.3)	16 (13.1)	0.968

Percentages are calculated in columns; * Hi-square.

Table 6 shows the association of the presence of oral tori with bruxism and malocclusion. Bruxism and malocclusion was present in both groups of patients with and without oral tori with no significant statistical differences between them.

Table 7. Association of oral tori with bruxism and malocclusion.

	Patient with oral tori		Patient without oral tori		All patient		p-value*
	Male n=24 (%)	Female n=35 (%)	Male n=21 (%)	Female n=42 (%)	Male n=45 (%)	Female n=77 (%)	
Bruxism	11 (45.8)	20 (57.1)	9 (42.9)	18 (42.9)	20 (44.4)	38 (49.4)	0.745
Malocclusion	5 (20.8)	7 (20.0)	2 (9.5)	4 (9.5)	7 (15.6)	11 (14.3)	0.813
Without bruxism and malocclusion	8 (33.4)	8 (22.9)	10 (47.6)	20 (47.6)	18 (40.0)	28 (36.4)	0.745

Percentages are calculated in columns; * Hi-square.

4. Discussion

Oral tori are nodular protuberances that despite not considered as a pathology, their big size can impact the patient's life. They can interfere in the oral cavity functions, and some dental and medical procedures. This case-series study examined the prevalence of oral tori in Albania, the most common pattern and its correlation with gender and age-group. In Albania, there are no published studies on

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the prevalence of tori. This lack of data represents a gap in the dental health knowledge of the Albanian population and can impede effective dental health planning and services.

There have been a number of investigations, and it is generally known that there are racial differences in the prevalence of tori. The results of the present study showed a high prevalence of oral tori 48.3%, which was higher than 2.1% reported by Agbor et al. [41], 12.5% reported by Sathya K et al. [42], 13.9% reported by Al Quran FA et al. [38], 27.76% reported by Santosh et al. [16], 33% reported by Sing et al. [33], higher than 38% reported by Mohd et al. [43].

In diverse groups worldwide the prevalence of oral tori based on their location ranges from 1%-64% for TM and from 0.4%-61.7% for TP [42]. There have been several studies for prevalence of tori's type. So, El Sergani et al. [21], reported that TP was higher in subjects with East Asian origin as in those with West African origin. The prevalence in the present study of TM reported 39.3% and TP 11.5%, which is comparable with results of other studies, Faiza M. [44] reported TM 10.9% and TP 16.3%, Kumar Singh A. et al. [23], reported TM 8.9% and TP 27.9%, Ahmed H. [45] reported TM 5.7% and TP 23.7%, Telang et al. [18], reported TM 3.3% and TP 13.2%, and Ramsha et al. [46], reported lower value of tori, TM 3.3% and TP 0.6%.

Sometimes, a single individual can have multiple oral tori. In the present study only 10.2% of patients was presented all type of oral tori. The same percentage (10.2%) showed torus mandibularis and exostosis and 1.7% torus mandibularis and torus palatinus.

Several researchers have analyzed the correlation among prevalence of oral tori and gender. Some studies have shown a higher prevalence of torus palatinus (TP) in females compared to males, as well as larger average dimensions of the tori in females [33,38,43,45,47,48]. While other study revealed no difference of tori in male and female [49]. In the present study, the authors found that occurrence of oral tori was not related to gender.

Based on several studies, TP may start and develop between 10-30 years of age. As noted by others, oral tori growth may persist after the age of thirty, specifically in the age-range 40-60 years, with a population-specific incidence peak [47]. Chang et al. [50], reported higher prevalence of oral tori to a younger age group, while Agbor et al. [41], reported that prevalence of tori was higher to 60-69 age group. In the present study, the higher prevalence of oral tori was evident in 18-29 age group. The similar finding was reported by Hiremath et al. [51]. Moreover, in the present study, the lower number of patients with oral tori was presented by older age group 70-79 years. Even that it is unknown the correlation between development of tori and young age, the most possible explanation may be the occlusal forces. The decrease of oral tori prevalence in older patients could be attributed to occlusal forces reduction as a result of soft diet and missing teeth during age [52]. In the present study very few patients belonged to the age-group of 70-79 years.

There is a wide range of morphological features observed on TM and TP. TM is typically unilateral or bilateral solitary, unilateral or bilateral multiple, or bilateral combined and TP might be flat, lobular, nodular or spindle-shaped. The prevalence of their shapes may vary in different population, age-group and gender. Al-Bayaty et al. [53], reported that flat form was the most frequent TP form with high percentage 48%, whereas Simunkovic SK et al. [4], and Jainkittivong et al. [34], reported that spindle-shaped of TP was the most common type 45.6% and 56%, respectively. In the present study, the most common shape for TP was flat 71.4%, nodular form was not seen in any case and prevalence of spindle-shaped and lobular resulted on the same percentage 14.3%. These to last forms were present only in female. In terms of the prevalence of torus mandibularis types, in the present study the most common form was bilateral solitary 47.9%. The same results reported by Simunković SK et al. [4], and Guru et al. [54], where the most common form of TM was bilateral 35.4% and 78.3%, respectively.

The important prosthodontic issues in patients with oral tori are related to their position, size and form [3]. The most problematic forms are those of large size and bilateral. From all type of TP, the nodular type presents a higher risk of prosthodontic difficulties. When the case presented with medium or large form of tori, before to the construction of any types of dentures indicated surgical removing of tori or changes to denture design. The small forms of oral tori do not have clinical significance, but should be kept under observation.

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Although oral tori have been subject of many studies, it remains unknown how they start. It is very possible that there are multiple contributing factors to its onset. That is believed to be a result of both genetic and environmental circumstances. One theory, known as the Osteogenic-Periosteal Stretch Hypothesis, proposed by Garcia [7], argues that the mental process limits the chin from experiencing excessive deformation, by developing an external chin, the torus formation is localized to the premolar region. Nevertheless, there is a little data to support this theory [55]. According to genetic theories, certain hereditary factors play a predominant role in the development of oral tori. However, some researchers have noted that oral tori may also be induced by environmental factors [56], as they generally appear during the third decade of life. One possible explanation might be occlusal stress applied by teeth to the alveolar bone [42]. Another theory is high altitude hypoxia. So, in one study [54], the authors reported higher percentage of torus mandibularis at higher altitudes. Many studies have found a substantial correlation between TP and other genetically based bony dysostoses, which is characterized by increased bone mass [14,57]. Other investigations have been carried out to assess the impact of hyperparathyroidism on the development of tori [58,59]. However, in patients receiving peritoneal dialysis, there was no association seen between the development of tori and secondary hyperparathyroidism. Therefore, further research should take a closer look at the correlation between the above variables.

According to Igarashi et al. [60], the presence of dental attrition can be a sign of occlusal stress. On the other hand, occlusal stress is known to be an important factor in the development of tori. Guru et al. [54], reported an association between clenching and grinding and the presence of TM. In the present study, the authors have analyzed the occurrence of tori in correlation to bruxism. They founded that 44.4% of males and 49.4% of females have bruxism and 15.6% of males and 14.3% of female have malocclusion. In our study the prevalence of tori was very high. The most possible factors may be genetic, bruxism [61], and low level of vitamin D [62].

Tori is generally an asymptomatic clinical finding that don't usually need to be removed. It may reduce its dimension, due to the loss of teeth after bone resorption at 50 years of age [3]. When they are small, do not interfere in daily life of patient. In cases associated with big size, they must undergo surgical removal.

Recently, most of the patients have increased their requirements for dental treatment, where one of them is replacing missing teeth with dental implants instead of removable dentures. In these case oral tori may be use for autogenous bone graft in surgical procedures during dental implants placement. Moreover, the presence of oral tori serves as indicator of mandibular advancement devices success in patients treated for obstructive sleep apnea [63].

The strength of the present study includes the fact that the examination of patients was conducted only by one trained and experienced research to prevent inter-examiner bias.

The limitation of the study is the low size of sample and the authors couldn't take information in relation to vitamin D and calcium level, and hyperparathyroidism.

5. Conclusions

The prevalence of oral tori was found to be very high and not related to gender or bruxism. Dental professionals should be aware of the high occurrence of oral tori and their importance in dental practice. Nevertheless, further assessment of the prevalence of tori in a larger sample is required.

Author Contributions: Conceptualization, V.D. and E.P.; methodology, E.P.; software, M.Z.; validation, M.Z., V.D.; formal analysis, E.P.; investigation, V.D.; resources, V.D. and E.P.; data curation, V.D.; writing—original draft preparation, V.D.; writing—review and editing, E.P. and M.Z.; supervision, M.Z. All authors have read and agreed to the published version of the manuscript.

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Data Availability Statement: The authors declare that the data in this research are available from the corresponding author upon reasonable request. The data are not publicly available due to ethical.

Conflicts of Interest: The authors declare no conflicts of interest. The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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