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Bilateral torus mandibularis: A case report with mini review

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Abstract

Tori are non-neoplastic reactive or developmental localized overgrowths of alveolar bone. Tori or exostosis comprised of dense cortical and lesser amount of bone marrow with a thin and poorly vascularized mucosa. Tori are seen more commonly during middle age of life. Tori can be seen in mandible (Torus mandibularis) as well maxilla (Torus palatinus), but palatal tori are seen in slightly more cases as compared to mandible. Common complications with tori include difficult speech and problems encountered during complete denture fabrication. The etiology of torus palatinus and torus mandibularis remains obscure. Size of tori varies from few millimeters to few centimeters in diameter. Surgical resection of tori is the mainstay of treatment which is done in large size tori which interferes with tongue position, speech, mastication and complete denture construction. The aim of this paper is to present a case of bilateral mandibular tori with mini review describing types of tori and clinical significance.

Keywords: Tori, mandibular tori, torus mandibularis, torus palatinus

Introduction

Tori as bony protuberance or localized bony outgrowth are derived from latin which means “to stand out” or “lump”. Tori composed of dense cortical and less amount of bone marrow with a thin and poorly vascularized mucosal covering. Tori are asymptomatic found in second and third decade of life and exhibit slow growth. Asians and Eskimos presents with significant higher prevalence of tori. Palatal tori are common in females whereas mandibular tori are common in males. Exact etiology of tori is obscure but many factors have been proposed for tori formation which includes genetic factor, environmental factors, masticatory hyper function, and continued growth and bone mineral density [1-3]

The incidence rate ranges from 9.2% to 66% for palatal torus and 0.5% to 63.4% for mandibular torus. Tori are seen as nodular, lobular or spindle shaped bony overgrowths which begin to develop in early adulthood and may enlarge very slowly over the years. Tori can be three types depending upon the location;

1. Palatal Tori, present in the middle of hard palate,
2. Mandibular Tori, present on lingual aspect of mandibular bicuspid and are usually bilateral,
3. Bony Exostosis, seen on buccal aspect of maxilla more common than mandible and thus also called as buccal exostosis. Size of tori varies from few millimeters to few centimeters in diameter [4-6]

Five indications and complications which necessitate tori removal were given by Pynn *et al.* [7] which includes traumatic ulcers from mastication; prosthodontic considerations; cancer phobia; interference with tongue function during mastication; difficult normal speech. Mandibular tori are usual clinical finding and require no treatment, but in case if large sized tori pose above mentioned complications, surgical excision is the treatment of choice.

Case Report

A 34-year-old male patient, reported to the department of Oral medicine & radiology, with the chief complaint of bony growth on both the sides of his lower jaw below the tongue since one month. Patient reported that he accidentally felt the growth by tongue movement one month back, after which he developed habit of rotating tongue on the growth. The patient denied pain, ulceration, bleeding and any discharge from the growth. Medical and family history was non-contributory.

There was no lymphadenopathy. Extra-oral examination revealed facial symmetry without any abnormal features. Intra-oral examination revealed two nodular, painless, bony hard masses of 1x1.5 cm and 1x0.5 cm approximately and three similar masses of 1x1.5 cm, 1x0.5 cm and 0.5x0.5 cm approximately (Figure-1). The overlying mucosa over the masses was thin, intact with normal color. Radiographic examination with mandibular occlusal radiography revealed oval radiopaque areas bilaterally in premolar region (Figure-2). Based on these findings, a provisional diagnosis of suspected bilateral mandibular tori was made. The patient was explained about the nature of tori and surgical plan for removal, but as the growth was asymptomatic and he was well aware of the condition, he refused for surgical removal of masses.

Discussion

Mandibular tori are bony exophytic growth seen on lingual aspect of mandibular canine and premolar area which may extend up to first molar area. They can be unilateral or bilateral (90% of cases). Palatal tori are more common than mandibular tori. The size of tori varies from few millimeters to few centimeters in diameter with common occurrence in males. Tori are usually bosselated or multi-lobulated but the exostosis is typically a single, broad-based, smooth surfaced mass with central pointed projection of bone. Tori can be of four types on the basis of shape or appearance.

1. Flat tori are symmetrical bony growths with broad base and smooth surface commonly seen on palate,
2. Spindle tori have ridge at midline,
3. Nodular tori having multiple round to ovoid bony growths with separate base, and
4. Lobular tori are similar to nodular but all bony growths have common base [8-10]

The exact cause for mandibular tori formation is not clear, but genetic and environmental factors are thought to be involved. Environmental factors include diet, presence of teeth, occlusal stress, bruxism and clenching. As there is no malignant potential and mostly tori are asymptomatic, surgical resection is not advised. Surgery is required in slowly enlarging tori and tori which interferes with speech, mastication and denture reconstruction. During surgical removal of distally extended tori lingual nerve damage can arise as complication. Other complications of tori surgery include infection and floor of mouth hemorrhage. Use of lasers is one of the recent techniques for excision and smoothing of tori [8, 10]



Fig 1: Shows nodular bony outgrowths on lingual aspect of bicuspids bilaterally.



Fig 2: Shows round-ovoid radiopaque area in premolar root area.

Conclusion

Mandibular tori are non-neoplastic and asymptomatic bony growths. Thus, does not usually require any surgical treatment, but only re-assurance with verbal counselling is required unless it becomes symptomatic and interfere with speech and mastication.

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