

## Mandibular Tori – A Case report & Review

Anu Sangwan,<sup>1</sup> Kuldeep Sharma<sup>2</sup>

### ABSTRACT

Mandibular tori are bony exophytic growths that are present on the lingual aspect of the mandible, opposite to the bicuspid. They present in early midlife and tend to grow with age. Mandibular tori occur in 6-7% of the population. The etiology of exostosis is multi factorial including genetic and functional influences.

The aim & objective of this case report and review is to inform practitioners about Torus Mandibularis – Indications for removal, Radiographic interpretation & its management.

Types of Studies Reviewed:- The authors used PUBMED to find relevant English-language literature published in the period 1996 to 2011. They used combinations of the search terms tori, madibularis, torus, madibular

Generally, surgical resection is not required for mandibular torus, as long as the condition remains asymptomatic. However, treatment is indicated when subjective symptoms such as discomfort, pain, articulation disorder, or problems in the insertion of dentures are present.

**KeyWords:** Tori mandibularis, Mandibular Torus, Tori

### Introduction

Tori mandibularis arises on the tongue-side of the lower jaw, in the region of the premolars / bicuspid generally (and above the location of the mylohyoid muscle's attachment to the mandible) & may extend to molar region<sup>[1,2]</sup>. They are typically (90% of cases) bilateral (i.e on both sides) forming hard, rounded swellings<sup>[3,4]</sup>. These are bony exophytic growth.

The prevalence of mandibular tori ranges from 6% to 7% of the population. It is less common than bony growths occurring on the palate, known as torus palatinus. They vary in size, from few millimeters to few centimeters in diameter. Mandibular tori are more common in Asian populations, and slightly more common

in males. In the United States, the prevalence is 7% - 10% of the population with similar findings between blacks and whites.

Tori can be categorized by their appearance:-

1. Flat tori - arising as a broad base and a smooth surface, are located on the midline of the palate and extend symmetrically to either side.

2. Spindle tori - have a ridge located at their midline.

3. Nodular tori - have multiple bony growths that each have their own base.

4. Lobular tori - have multiple bony growths with a common base.

The torus may be bosselated or multi-lobulated but the exostosis is typically a single, broad-based, smooth-surfaced mass, perhaps with a central sharp, pointed projection of bone producing tenderness immediately beneath the surface mucosa.

It is believed that mandibular tori are caused by several factors. They are more common in early adult life and are associated with bruxism. The size of the tori may fluctuate throughout life, and in some cases the tori can be large enough to touch each other in the midline of mouth. Consequently, it is believed that mandibular tori are the result of local stresses and not solely on genetic influences.

Indication for removal of mandibular tori :-

1. Interfere with tongue positioning
2. Speech interference
3. Prosthodontic reconstruction
4. Patient with poor oral hygiene around the lower posterior teeth
5. Cancer phobia<sup>[5]</sup>
6. Traumatic ulceration from mastication

Mandibular tori are usually a clinical finding with no

treatment necessary until there is complain of pain, speech defect. It is possible for ulcers to form on the area of the tori due to trauma. The tori may also complicate the fabrication of dentures. If removal of the tori is needed, surgery can be done to reduce the amount of bone, but the tori may reform in cases where nearby teeth still receive local stresses [6]. When treatment is elected, the tori may be chiseled off of the jaw or removed via bone-burr cutting / smoothing through the base of the bony lump.

Possible complications of surgery include lingual nerve damage in cases of distally extended tori, infection and floor of mouth haemorrhage. The latter is a rare sequela but can be life threatening and must be managed immediately in order to prevent airway embarrassment[7].

## Case Report

A 54-year-old male patient, came to Rajasthan Dental College & Hospital, Jaipur presented to the department of Oral medicine & radiology, complaining of bony growth on his lower jaw below the tongue. He had noticed this growth 2 years ago , which is increasing gradually to attain the present size. He reported pain only when food gets lodged against the growths. The patient denied ulceration, bleeding and drainage.

A thorough medical and dental history was completed along with a clinical examination and occlusal radiograph. On examination unilateral sublingual bony-appearing growth covered in normal oral mucosa in the premolar & 1<sup>st</sup> molar region was found. There was no lymphadenopathy. The growths were non tender and without discharge or fluctuance. Swelling was situated in the lingual cortical plate extending from 35 to 36 region , measuring about 1.8 cm x 1.4 cm x 0.8 cm.(Fig. 1-3)



**Fig.1** Bulbous swelling involving left mandibular 2nd premolar and 1st molar



**Fig. 2** Intra oral periapical radiograph showing big oval radiolucency involving left mandibular 2nd premolar & 1st molar



**Fig. 3** Occlusal radiograph showing Radiolucency around left 1st mandibular molar and 2nd premolar

Many patients are reluctant to be subjected to the use of an osteotome and mallet while awake, especially if repeated blows are required to separate the torus or exostosis from the bone. As a result of these factors, most patients who present with mandibular tori postpone and even avoid clinical treatment. Interest is growing in using alternatives to rotatory and manual instruments for osteotomies in oral and maxillofacial surgical procedures. Laser excision has better patient acceptance compared to conventional technique in removal of mandibular tori. Currently, there are few reports regarding the use of lasers in bone surgery and little is known about the effectiveness for bone ablation or the healing characteristics of the laser-irradiated bone tissue compared with conventional rotary instrumentation.

## Discussion

The cause of mandibular torus has not been clearly determined, though both genetic factors and

environmental factors such as diet, presence of teeth, and occlusal pressure are suspected to be involved<sup>[9]</sup>. Some reports have suggested that genetic predisposition to mandibular torus may be inherited in a dominant manner<sup>[10]</sup>. In regard to environmental factors, one study suggested a correlation between the number of existing teeth and incidence of mandibular torus, as the number of existing teeth was significantly higher in patients with mandibular torus than in those without mandibular torus<sup>[11]</sup>. Further, occlusal stress such as bruxism and teeth clenching have been noted to be involved in the development of the condition<sup>[12]</sup>. The risk of mandibular torus generally decreases after middle age. Generally, surgical resection is not required for mandibular torus, as long as the condition remains asymptomatic.

Slowly enlarging, recurrent lesions occasionally are seen, but there is no malignant transformation potential. The patient should be evaluated for Gardner syndrome should there be multiple bony growths or lesions not in the classic torus or buccal exostosis locations. Intestinal polyposis and cutaneous cysts or fibromas are other common features of this autosomal dominant syndrome.

Mandibular tori does not require treatment unless it becomes so large that:

- It interferes with function or denture placement
- Suffers from recurring traumatic surface ulceration (usually from sharp foods, such as potato chips or fish bones)
- Contributing to a periodontal condition

However, treatment is indicated when subjective symptoms such as discomfort, pain, articulation disorder, or problems in the insertion of dentures are present.

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### About the Authors

1. *Dr. Anu Sangwan* *MDS*  
Lecturer , Department of Conservative & Endodontics,  
Rajasthan dental college & Hospital
2. *Dr. Kuldeep Sharma* ,  
Post Graduate 1st Year,  
Orthodontics, Rajasthan dental college & Hospital

### Address for correspondence:

**Dr. Anu Sangwan**  
Lecturer , Department of Conservative & Endodontics,  
Rajasthan dental college & Hospital  
Email: [drasangwan@gmail.com](mailto:drasangwan@gmail.com)