



Torus Mandibularis: A Case Study

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ABSTRACT

Torus mandibularis, a bony overgrowth found generally on the lingual aspect of the lower premolars above the mylohyoid line can cause difficulty in routine fabrication and insertion of denture due to ulceration of the thin overlying mucosa. Surgical intervention may be necessary in case of hindrance in the prosthetic rehabilitation and in conditions associated with pain and discomfort. This article briefly reviews the literature pertaining to incidence of distribution of mandibular tori along with a case report depicting its management.

KEYWORDS: *Torus Mandibularis, Exostosis, Bony Growth.*

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INTRODUCTION

Torus mandibularis can be defined as an exostosis, unilaterally or bilaterally situated on the lingual aspect of the mandible above the mylohyoid line usually in the region of the premolars. Hooton stated that the mandibular torus is essentially a functional adaptation rather than a racial characteristic and that it occurs especially among people living in northern latitudes and existing principally on animal food. They were classified as: (a) single unilateral torus, (b) multiple unilateral tori, (c) single bilateral tori, and (d) multiple bilateral tori [1-3].

Factors which influence mandibular tori include genetic and environmental factors, functional, nutritional, behavioural, and climatologic factors. The main issue regarding the mandibular tori is the disagreement on the morphogenetic role of hereditary versus environmental factors [4-7].

The two most prominent theories of origin for mandibular tori that have been proposed are related to masticatory stress and heredity. In 1959, Johnson suggested that the correlation between the amount of tooth wear and torus development was a functional response of the mandible to abnormal masticatory stress which is supported by the observations of Hooten [7] of mandibular tori in eskimos with severe dental attrition.

CASE STUDY

A 34-year-old female patient with the chief complaint of painless hard swelling of the lower left inner side of the jaw, reported to the department of Oral and Maxillofacial Surgery, Santosh Dental College and Hospital, Ghaziabad. 6 months back, the patient had noticed a painless growth in the lower left side of the jaw. Since it was not painful, she did not seek medical advice. The swelling gradually increased in size and reached the present size at the time she reported to us.

There were no specific findings in the patient on extraoral examination. On intraoral examination, there was a presence of a solitary swelling in the lower left lingual surface of the mandible in the attached gingiva of the bicuspid and first molar, approximately 1.2cm x 1cm in the anteroposterior and superoinferior dimensions. The swelling extended from the free gingival margin superiorly to 0.5cm above the mylohyoid ridge inferiorly. Mucosa overlying the swelling appeared stretched and pale in colour. On palpation, the inspeactory findings were confirmed. The swelling was non-tender, bony hard in consistency. Orthopantomogram revealed a well circumscribed oval radiopacity on the left lingual surface of the mandible in the region 35 and 36. The lesion was provisionally diagnosed as osteoma, mandibular tori or mandibular exostosis and was planned for excision under local anesthesia.

The patient was prepared and draped under proper asepsis protocol followed by administration of local anesthesia. A full thickness envelope mucoperiosteal lingual flap was raised extending from the mesial aspect 33 till the distal aspect of 37 taking care not to perforate the thin overlying mucosa. The lesion was adequately exposed and excised from the lingual surface of the mandible with the help of a mallet and an osteotome. The excised specimen was measured in all dimensions, and was later sent for excisional biopsy.



Fig 1: Exposure of the bony growth



Fig 2: Bony hard tissue excision

Pathological report depicted hard tissue consisting of mature bone with lacunae and osteocyte. Resting and reversal lines were also noted. Hard tissue was surrounded by soft tissue comprising of fibrous connective tissue and adipose tissue. Overall features were suggestive of mandibular tori.

The genetic factors and environmental factors such as diet, presence of teeth and occlusal pressure are suspected to be the cause of mandibular torus but it has not been clearly determined. Some reports have suggested that genetic predisposition to mandibular torus may be inherited in a dominant manner. A 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. Habits such as bruxism and teeth clenching also attribute to the development of this condition. The risk of mandibular torus generally decreases after middle age. In a study by Apinhasmit *et al.*, the size, shape and location of torus mandibularis in relation to age, sex and size were evaluated. Out of 383 torus mandibularis, most torus mandibularis were small; when bilateral, it was found in the symmetrical pattern, when unilateral most commonly on the left side [9-10]. In our case, the patient was a middle-aged female patient presented with unilateral mandibular tori extending from the left premolars till first molar region anteroposteriorly. In a study by Seah YH, the author reviewed the literature on torus mandibularis and torus palatinus where he has described the mucosa covering the mandibularis tori is usually thin but normal looking which holds true in our case as well. The torus mandibularis is more prevalent in males than female whereas in our case, the patient is female presenting with mandibular tori [10-13].

One common treatment modality in all the cases of torus mandibularis is excision of the bony growth. In our case, the treatment option was to excise the growth and subsequently sent for hard tissue biopsy to the department of oral and maxillofacial pathology for final diagnosis. In certain cases with larger size torus mandibularis that interferes with speech, mastication, deglutition, and the fitting of a denture, surgical intervention is always indicated. In cases associated with osteomyelitis and squamous cell carcinoma, treatment modalities are different and are treated by their respective methods.

CONCLUSION

Torus mandibularis is an exostosis formed by hypertrophy of the compact layer and sometimes the spongy layer. The difference between the sexes and various ethnic groups has been statistically proven by certain studies. There is a difference in the incidence of the occurrence of mandibular tori in similar ethnic groups and different sexes living in different environments.

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