



Short Communication

Torus palatinus- An incidental finding and its clinical relevance

Mouna Subbaramaiah^{1,*}¹Dept. of Anatomy, Kempegowda Institute of Medical Sciences, Bangalore, Karnataka, India

ARTICLE INFO

Article history:

Received 15-12-2022

Accepted 28-12-2022

Available online 12-01-2023

This is an Open Access (OA) journal, and articles are distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/), which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprint@ipinnovative.com

Keywords:

Torus palatinus

Hard palate

Oral exostosis

Physical examinations should always include a regular check of the hard palate. During routine osteology teaching for undergraduates an incidental finding of a bony outgrowth was observed in the mid palatal region of hard palate of a female elderly partly edentulous skull. The growth was nodular and extended from incisive fossa to the middle of the hard palate along the mid sagittal/palatal suture measuring a length of 2.8cm.the lesion measured 0.6cm at its maximum diameter.

The prevalence of tori, which are benign bone growths from the mandible and maxilla, is about 27 per 1000 person.¹ The mature, dense cancellous bone that makes up these oral exostoses typically has a ring of varied thickness cortical bone around it. There may occasionally be a little amount of osteoblastic activity or even hemopoietic marrow.² Although the torus may begin to emerge in the early adult years, it may not become evident until the middle of adulthood. The torus palatinus (TP) develops at the midpalatal suture. The likelihood rises with age and reaches a plateau in the third decade, when bone mass is typically at its optimum.³ Females and members of some ethnic and racial groupings, particularly Asians, are more likely to have tori.⁴ It appears that the underlying aetiology of tori

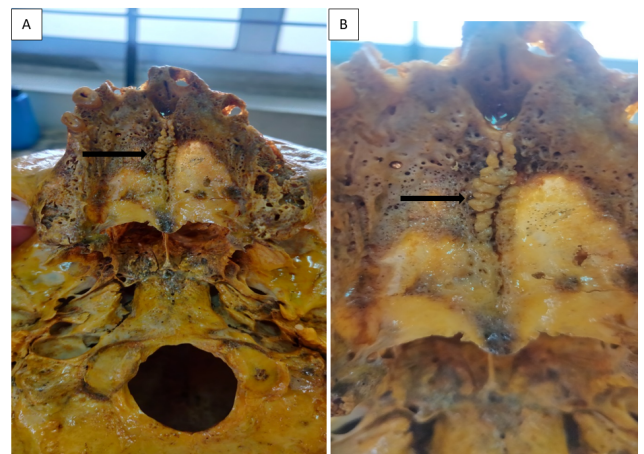


Fig. 1: A: Hard palate with tori palatinus; **B:** Hard palate with tori palatinus magnified

is mostly hereditary in nature and may run in families.⁵ LRP5 gene polymorphism may indicate a mechanism that promotes bone deposition.⁶ In some circumstances, local stresses including occlusal pressures and microtrauma may also play a role.⁷ Primary hyperparathyroid patients were more likely to experience oral tori and radicular lamina dura

* Corresponding author.

E-mail address: msjkims@gmail.com (M. Subbaramaiah).

decreases. As a result, several factors, including genetics, environment, age, sex, and others, might contribute to the genesis of torus. From scarcely perceptible to quite enormous, flat to lobular, the size varies.⁸

At the outset the above case seemed like a benign oral exostosis or tori palatinus however other differential diagnosis like malignancy cannot be totally ruled out. Surgical excision of oral tori is often not essential because they are benign lesions, unless they are large enough to obstruct speech, mastication, or dental prosthetics or cause ulceration.⁹ Despite not being a pathological state, its existence calls for attention and management knowledge. Exostoses should be surgically removed if the patient often traumatises the palatine torus during mastication and speaking or if full dentures are required for the rehabilitation of the upper arcade. The mucosa that covers the torus is very thin and prone to tearing, thus the excision should be performed with caution. Additionally, problems might develop from the surgeon's iatrogenic actions, such as perforation of the nasal cavities, nerve injury, and bone necrosis from inadequate cooling during surgical drilling, bleeding from cutting the palatine arteries, palatine mucosa tears, and palatine bone fracture.¹⁰

References

1. Bouquot JE, Gundlach KK. Oral exophytic lesions in 23,616 white Americans over 35 years of age. *Oral Surg Oral Med Oral Pathol.* 1986;62(3):284–91.
2. Gnepp DR. Diagnostic surgical pathology of the head and neck. Philadelphia: Saunders; 2001. p. 159–61.

3. Hjertstedt J, Burns EA, Fleming R, Raff H, Rudman I, Duthie EH, et al. Mandibular and palatal tori, bone mineral density, and salivary cortisol in community-dwelling elderly men and women. *J Gerontol A Biol Sci Med Sci.* 2001;56(11):731–5.
4. Chohayeb AA, Volpe AR. Occurrence of torus palatinus and mandibularis among women of different ethnic groups. *Am J Dent.* 2001;14(5):278–80.
5. Gorsky M, Bukai A, Shohat M. Genetic influence on the prevalence of torus palatinus. *Am J Med Genet.* 1998;75(2):138–40.
6. Boyden LM, Mao J, Belsky J, Mitzner L, Farhi A, Mitnick MA, et al. A syndrome featuring high bone density caused by a mutation in LRP5, a component of the Wnt signaling pathway. *N Engl J Med.* 2002;346(20):1513–21.
7. Morrison MD, Tamimi F. Oral tori are associated with local mechanical and systemic factors: a case-control study. *J Oral Maxillofac Surg.* 2013;71(1):14–22.
8. Jainkittivong A, Langlais RP. Buccal and palatal exostoses: Prevalence and concurrence with tori. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 2000;90(1):48–53.
9. Hsu C, Hsu C, Chang P, Huang WH, Weng CH, Yang HY, et al. Oral tori in chronic peritoneal dialysis patients. *PLoS ONE.* 2016;11(6):e0156988.
10. García-García AS, Martínez-González JM, Gómez-Font R, Soto-Rivadeneira A, Oviedo-Roldán L. Current status of the torus palatinus and torus mandibularis. *Med Oral Patol Oral Cir Bucal.* 2010;15(2):e353–60.

Author biography

Mouna Subbaramaiah, Associate Professor

Cite this article: Subbaramaiah M. Torus palatinus- An incidental finding and its clinical relevance. *Indian J Clin Anat Physiol* 2022;9(4):285-286.