

(Refer to page 61)**Answer: Torus Palatinus**

The torus palatinus is a common exostosis in the midline of the hard palate and it usually found in mid-third area of hard palate. It was first named by Kupffer in 1880. An occurrence of the torus palatinus were ranges from 9% to 66%.¹ The pathogenesis of the torus palatinus is debatable. It may be due to nutritional disturbances, evolution, hereditary, continued growth, masticatory hyperfunction or environmental factors. Among the pathogenesis, occurrence of torus palatinus is interplay between genetic and environmental factor.¹

Most patients are asymptomatic and incidentally detected during dental checkup. However, the presence of torus palatinus may hinder construction of upper denture. It also affects normal daily functions like speech, deglutition and mastication.¹ Mucosa over the torus is usually thin but normal in appearance. It may ulcerate if traumatized.² Radiographically it appears as a radiopaque bony mass.³ Histologically it consists of 3 layers in cross-section, which is nasal compact layer, intervening spongy layer and oral compact layer. The spongy and oral compact bone layers are both considered as overgrowth.²

There are few classifications for the torus palatinus but the most common used classification is by Thoma and Goldman, which is based on morphology:³

1. Flat torus: has a broad base and slight convex, smooth surface.

2. Spindle torus: has midline ridge along the palatal raphe.
3. Nodular torus: arises as multiple protuberances, each with individual base. Protuberances may coalesce, forming groove in between them.
4. Lobular torus: also a lobulated mass, but it raises from a single base. It can be either sessile or pedunculated.

The occurrence of the torus palatinus is more often in male, but some authors claimed that it is more prevalent in female. Occurrence in female is related to larger size of the torus. Mostly it measures less than 2 cm in diameter, but it may gradually increase in size.³

Patients presenting with torus palatinus are usually referred to the maxillofacial surgeon for further assessment. Most torus palatinus are managed conservatively. It is important to reassure patients about the benign nature of this condition and that is not something to be worried about. Surgical intervention is only needed if the torus is becomes so large that it interferes with speech, mastication, deglutition and denture fitting. From an anaesthetic point of view, large torus may develop site of food entrapment at the potential space between base of torus and hard palate. The trapped food may pose aspiration risk while establishing airway. The anaesthetist may need to do modified technique of insertion of the laryngeal mask to avoid trauma to the large torus.⁴

REFERENCES

- 1: Mema Bernaba J. Morphology and incidence of torus palatinus and mandibularis in Brazilian Indians. *Journal of dental research.* 1977;56(5):499-501.
- 2: Seah YH. (1995). Torus palatinus and torus mandibular is: A review of the literature. *Australian dental journal.* 1995;40(5):318-321.
- 3: Neville BW, Damm DD, Chi AC & Allen CM. *Oral and maxillofacial pathology.* 4th Edition. Elsevier Health Sciences. 2015. Hardcover ISBN: 9781455770526, ebook ISBN: 9780323341424.
- 4: Aron J, Raithel SJ & Mannes AJ. (2017). Images in Anesthesiology: Torus Palatinus and Airway Management. *Anesthesiology: The Journal of the American Society of Anesthesiologists.* 2017;127(1):164-164.