



Case Report

A Giant tonsillolith – A case report

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ABSTRACT

Tonsilloliths, also known as tonsil stones or tonsillar calculi are clusters of calcified material that form in crypts of palatine tonsil. They are usually of small size. Large or giant tonsilloliths are rare. We report a case of giant tonsillolith in left palatine tonsil and literature is reviewed.

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1. Introduction

Tonsillolith, also known as tonsilolithiasis and tonsillar concretions or simply called liths are stones that arise from calcium being deposited on desquamated cells and bacterial growth in tonsillar or adenoid crypts. The age of patients with tonsillar liths ranges between 10 to 77 years with mean age of 50 years with female to male ratio 1:1.¹ Smaller concretions are relatively common but large or a giant tonsilloliths are rare and very few cases of giant tonsilloliths reported, we report a case of giant tonsillolith in left palatine tonsil.

2. Case Report

A 24 years old female patient presented to ENT department with foreign body sensation in throat since 6 months with occasional left ear pain. She had recurrent episodes of throat pain since childhood and pain on swallowing. Non contrast CT Scan of neck was done which suggested a stone in left tonsillar parenchyma near upper pole of about 2 X 1.17 cm in size.(Figure 1)

Oral examination revealed a large bulging of the left tonsil with no signs of chronic tonsillitis. On palpation the bulge was stony hard in consistency, engulfed by the

tonsillar mucosa near upper pole of tonsil.

The tonsillolith measuring 2cm x 1.17cm was removed under general anesthesia(Figure 2), the tonsillar bulge was palpated intraoperatively and a small incision was placed near to anterior pillar, the lith was dissected from surrounding tonsillar tissue and removed (Figure 3), hemostasis was achieved and mucosa was sutured with vicryl, Patient was followed up post operatively for three months and recurrent sore throat, painful swallowing and left ear pain subsided completely. No complications noted after surgery. The tonsil remained normal during follow-up period.

3. Discussion

Tonsillar stones are product of calcified accumulation of food, cellular debris and microorganisms aggregated in crypts of palatine tonsil. Small tonsilloliths are associated with recurrent sore throat and if symptomatic, usually presents with a chief complains of halitosis. The giant tonsilloliths were found to be located in tonsillar tissue in 67.79% in tonsillar fossa 21.2% and 9% in palate, only one case is noted in lingual tonsil.²

The pathogenesis of the tonsilloliths is unknown. Although there are many hypothesis on the formation of these. It has been started that they originate as a result of repeated tonsillitis which leads to fibrosis of duct of crypts

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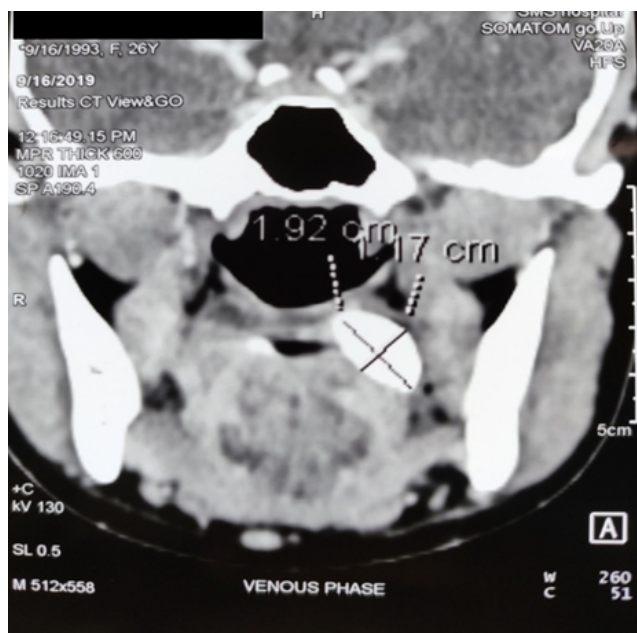


Fig. 1: Non contrast Computed tomography suggestive of radio-opaque lesion measuring 1.92cm *1.17cm in substance of left tonsillar fossa.



Fig. 2: Tonsillar stone after excision

and retention of epithelial debris. This epithelial debris form the ideal media for the growth of bacteria, actinomyces and fungi such as leptothrix buccalis. Finally dystrophic calcification occur as a result of deposition of inorganic salts from salivary secretions, other hypothesis is calculi located in peritonsillar area, the formation of calculi is secondary to salivary stasis within minor salivary glands or calcification of abscessified accumulation.

Using confocal microscopy, stoddley's group showed that biofilms on tonsilloliths containing cornucob structures,

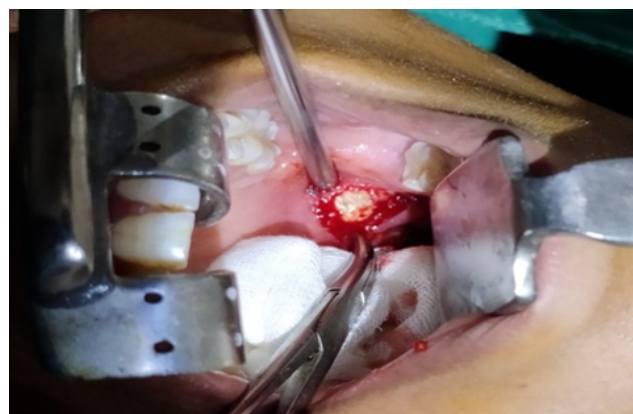


Fig. 3: Tonsillolith being removed

filaments and cocci. Tsuneishi et al. detected anaerobic bacteria in tonsillolith belonging from eubacterium, fusobacterium, megasphera, prevotella selenomonas all of which are associate with production of sulphur compound.³

Clinical signs and symptoms are usually absent in small tonsilloliths. Large once may present with foreign body sensation in throat, recurrent halitosis, odynophagia and referred otalgia. The tonsilloliths may be single, multiple may be embedded in tonsillar parenchyma or tonsillar crypts. The colour varies from grayish yellow to dark green, black, or red brown depending upon its chemical composition. Tonsilloliths can be palpated as hard mass embedded in tonsillar fossa. The diagnosis is made easy by palpation, doubtful cases can be confirmed with imaging diagnostic techniques which shows radio opaque shadow in tonsillar fossa. The differential diagnosis includes foreign bodies, calcified granulomas, malignancy, enlarged styloid process or rarely isolated bone originating from branchial arch, odontomas, sclerosing osteitis, fibrous dysplasia, idiopathic osteosclerosis and osteomas.⁴

The treatment modality usually involves local excision by curettage; large lesion may require local excision. If there is evidence of chronic tonsillitis tonsillectomy offers definitive treatment modality.⁴

4. Conclusion

Small tonsilloliths are common in oropharynx but a large or gaint tonsillolith like this case are rare. Removal of tonsillolith surgically offers good cure. Further research required to know exact cause and other modalities of treatment.

5. Source of Funding

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6. Conflict of Interest

None.

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