

Giant tonsillolith – a case report

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ABSTRACT

Tonsillolith or calculi of tonsil is unusual presentation of stone in tonsillar crypt. It commonly occurs between 20-77 years of age. Etiology of tonsillolith is multifactorial and not usually diagnosed. We describe a case of 32 years old male patient who presented with a 2 month history of mild odynophagia and was found to have a giant tonsillolith (2.9 x 2.6 x 2.3) cm in his right tonsil which was removed under local anaesthesia. We reviewed the literature on this rare clinical entity and found that this is amongst the largest ever reported cases of tonsillolith and first of its kind to be removed under local anaesthesia.

Key words: Tonsillolith, Leptothrix buccalis, palatine tonsils

Introduction

Giant tonsillolith is a rare clinical entity [1] although small concretions in the palatine tonsils are a common clinical finding in adults [2]. The earliest known description of concretions in the oropharynx is thought to be recorded by Lang in 1560 [3]. Tonsillolith is called as tonsil stone or throat stone. It is a cluster of calcareous matter in the tonsillar crypt of palatine tonsil. The size may vary and are usually cream in colour. Tonsillolith protrudes out of the tonsillar crypt, feels like foreign body in mouth and not usually harmful. It is one of the common causes of bad breath is more common in adults than in children. It is detected accidentally on oral examination or X-ray or a CT scan. Larger tonsillolith may present with symptoms like choking, tonsillitis, sore throat, dysphagia, odynophagia, ear ache, headache etc. but small sized tonsillolith are usually symptomless [4,5,6]. The mechanism of formation of tonsillolith is a subject of debate.

However commonest accepted hypothesis is that tonsillolith is formed from retained caseous secretions in the tonsillar crypts in conjunction with filaments of Leptothrix buccalis – a common oral saprophyte, sometimes in association with chronic purulent tonsillitis [1].

Other causes include hyperactive salivary glands, betel nut chewing, tobacco chewing (with CaCO₃), mucous secretions, intolerance to food or dairy products, salivary stasis and hypercalcemia [4,5,6].

Case Report

A 32 year old male patient presented with a history of right sided discomfort in throat with occasional mild odynophagia. Patient had a previous history of tonsillolith removal 3 years back. Oral examination revealed a large yellowish white mass embedded in crypta magna of right tonsil. On palpation the mass was stony hard. No other significant ENT abnormality was noted in the patient. The patient had history of tobacco chewing. The right tonsil and faucial pillars as well as the posterior pharyngeal wall were anaesthetized using 15% lignocaine (topical anaesthesia) (Figure 1). The tongue was retracted to opposite side and counter pressure applied at anterior faucial pillar using tongue depressor and tonsillolith was carefully dislodged from the tonsillar crypt using Jobson Home ear probe (Figure 2). There was no bleeding from the tonsillar tissue and post operative

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period was uneventful. The tonsillolith (Figure 3) was yellowish white in colour and measured (2.9 x 2.6 x 2.3) cm. It was bean shaped and had a pitted rough surface. Biochemical analysis of the tonsillolith revealed chemical components such as calcium, oxalate and phosphate.

Discussion

Tonsillolith or tonsil stones are unusual presentation of stones in the tonsillar crypts. The tonsilloliths are white or yellow coloured stones composed of calcium salts such as hydroxyapatite or calcium carbonate apatite, oxalates and other magnesium salts or ammonium radicals [8]. The exact pathogenesis of these stones is unknown although there are many hypothesis on the formation of these calculi. It has been stated that they originate as a result of repeated tonsillitis which leads to fibrosis of ducts of crypts and retention of debris thereof. This epithelial debris forms the ideal media for the growth of bacteria, actinomyces [9] and fungi such as *Leptothrix buccalis* [7]. Dystrophic calcification occurs as a result of deposition of above mentioned inorganic salts from the saliva secreted in mouth by major and minor salivary glands.

Calculi have also been reported in peritonsillar region [10] and lateral pharyngeal wall [11], and were explained by calcification of peritonsillar abscess, presence of ectopic tonsillar tissue and calcification of saliva in blocked secretory ducts of minor salivary glands [12, 13].

Tonsilloliths are found more frequently in adults than in children in between the age group of 20-77 years

[11]. The size ranges from few millimetres to several centimetres with largest described being (4.2 x 3.6 x 2.1) cm [14]. The stone may be asymptomatic or can cause variety of symptoms i.e. bad breath or halitosis, foreign body sensation in throat, odynophagia or dysphagia [14]. Clinically, the tonsillolith appears as white or yellowish hard object within the tonsillar crypt and of variable shapes like round, oval, cylindrical, pyramidal or plurilobular [15].

The diagnosis can be easily made on clinical examination including palpation of the tonsil. X-ray shows single or multiple radio-opaque shadows which may be mistaken for foreign body, calcified lymph node, unerupted tooth, calcified stylohyoid ligament, prominent tuber of maxilla or elongated styloid process. CT scan is found to be diagnostic by obtaining multiple axial sections [14].

Conclusion

It has been advocated to remove the stone surgically or perform tonsillectomy if stone is large or impacted within tonsil [14]. In our case although the stone was large but it was safely removed from the tonsillar crypt after instilling adequate topical anaesthesia and using the technique as described above thus avoiding the need for administering general anaesthesia and sacrificing the tonsil. However the patient was also counselled about avoiding the habit of tobacco chewing as it has been listed as one of the factors responsible for causation of tonsilloliths. Patient was also adviced for tonsillectomy in view of recurrent calculus formation.

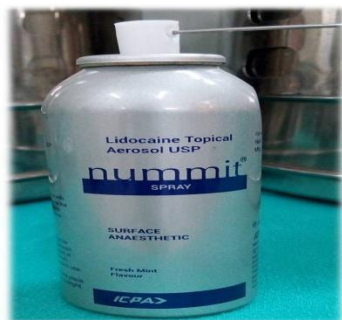


Fig 1: Lignocaine spray (15%)

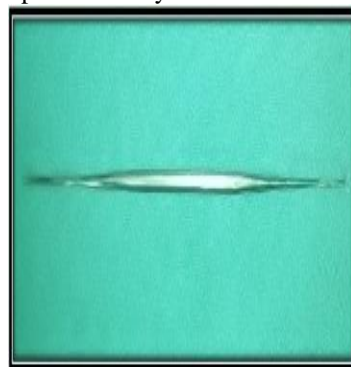


Fig 2: Jobson Horne ear probe



Fig 3: Tonsillolith

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