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### Unusual Foreign Body Presenting as Quinsy

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#### Abstract

Peritonsillar abscess is a localized accumulation of pus within the peritonsillar space and mostly results from suppurative infection of the tonsils or inadequately treated chronic tonsillitis but may also arise *de novo* without clinical evidence of tonsillar infection. Other proposed etiologies include infection of the Weber's glands or periodontal or dental infections. We report a case of right sided quinsy due to foreign body in tonsil (partial root of a carious molar). The case is discussed in view of its unusual etiology.

#### Introduction

Peritonsillar abscess or quinsy is a localized accumulation of pus within the peritonsillar tissues resulting from suppurative infection of the palatine tonsils, due to recurrent or inadequately

treated tonsillitis. Usually occurring unilaterally, it is characterized by pain, odynophagia, a characteristic “hot potato” voice and trismus. The affected tonsil is markedly congested and pushed medially. The cellulitis stage is managed conservatively; abscess formation necessitates surgical drainage or aspiration.<sup>1</sup>

We report a case of right sided peritonsillar abscess which was treated by incision and drainage followed by tonsillectomy in the same sitting, with the recovery of root of a carious molar tooth from the abscess cavity.

### **Case report**

A 35 year old lady presented to the Otolaryngology Department at Government Medical College & Rajindra Hospital, Patiala, India in September 2006 with severe recurrent pain in the throat for three months and high grade, intermittent fever, pain during swallowing, inadequate mouth opening, drooling of saliva and muffled voice for fifteen days. She gave a history of difficult dental extraction of lower two molars on the right side in July 2006 under local anaesthesia. The patient felt a sharp pricking sensation in the soft palate, right side, during the extraction and was shown two molars by the doctor, one of which was broken in many pieces. Following the extraction, her symptoms started. She underwent an incision and drainage for a right sided peritonsillar abscess five days after the extraction, following which the pain was relieved. However, the pain recurred after 7 days.

Examination revealed a moderately built, mildly dehydrated patient with restricted, painful mouth opening of two fingers with halitosis. Her temperature was 102°F and pulse 100 beats per minute, rhythmic and regular. The right tonsil was pushed medially and downwards with marked congestion of the surrounding soft palate and anterior faucial pillar. There were two pus points near upper pole of right tonsil, from which purulent discharge was expressed. Two lower molars of right side (34, 35) were absent. A carious third molar (16) was seen on the upper jaw, left side. Jugulodigastric lymph node of right side was enlarged (2x2 cm), tender, firm, and mobile. Laryngeal examination with a 45° telescope revealed congestion of mucosa of the larynx and pharynx with pooling of saliva on right side which disappeared on swallowing; no mass, ulcer or palsy of vocal cords was seen. Nasal, nasopharyngeal and otological examinations were normal.

Parenteral antibiotics (Amoxycillin –Clavulanic Acid) were started and incision drainage with tonsillectomy, also known as hot tonsillectomy was performed within 24 hours of admission. The surgery was done under local anesthesia as general anaesthetic fitness was not given due to trismus and fear of rupturing the abscess during intubation which could cause aspiration.

10 % lignocaine was sprayed into the oral cavity. 4cc of 2% lignocaine with 1:200000 adrenaline

was injected at three points in the anterior pillar above downwards with a 25 G spinal needle and 2cc of the same solution at two points in the posterior pillar above downwards. Soft palate near the base of the uvula was also infiltrated with 2cc of the anaesthetic solution. Incision was made at the most prominent part of the bulge of the abscess, near the discharging pus points. The floor of the abscess cavity near the upper pole of the tonsil was found to be hard and bony on sounding. From the two pus points, two sinus tracts were found leading to this point of the bony hardness. On further dissection, a hard foreign body was recovered from the abscess cavity which was embedded in the lateral surface of the right tonsil and removed (figure 1). After tonsillectomy, the tonsil was sent for histopathology which showed features of chronic tonsillitis. The foreign body retrieved was part of the root of a lower carious molar tooth, measuring 12 mm by 6 mm in size (figure 2). Culture of the pus revealed growth of *Streptococcus viridians* sensitive to Amoxicillin with Clavulanic acid and Ceftriaxone. Parenteral antibiotics and analgesics were continued for three more days during which the patient improved substantially with disappearance of symptoms. Any aberrant development of teeth or remnant was ruled out after a dental consultation.

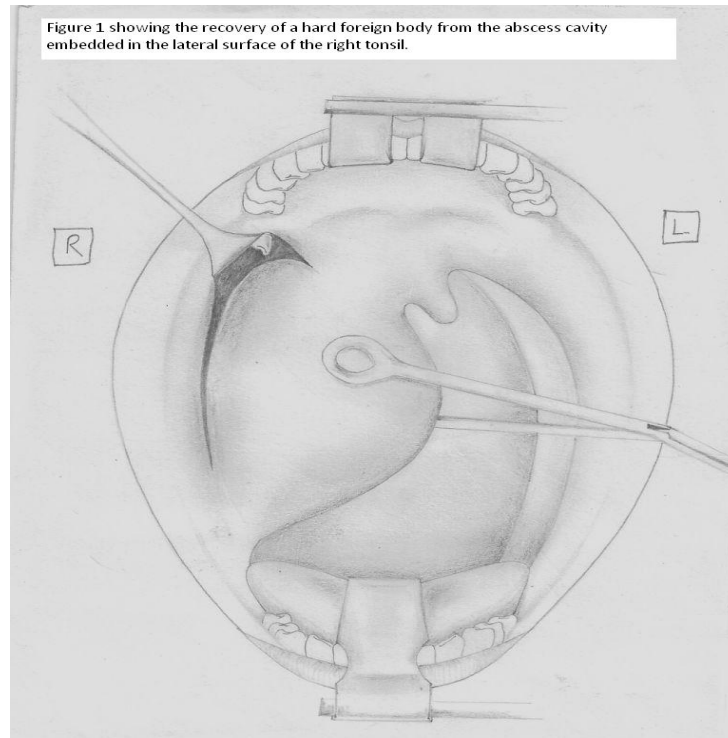
The patient was discharged from hospital three days later on oral Amoxicillin – Clavulanic acid (625 mg) twice daily for another five days. She was kept on follow –up for 2 weeks during which she remained asymptomatic.

## **Discussion**

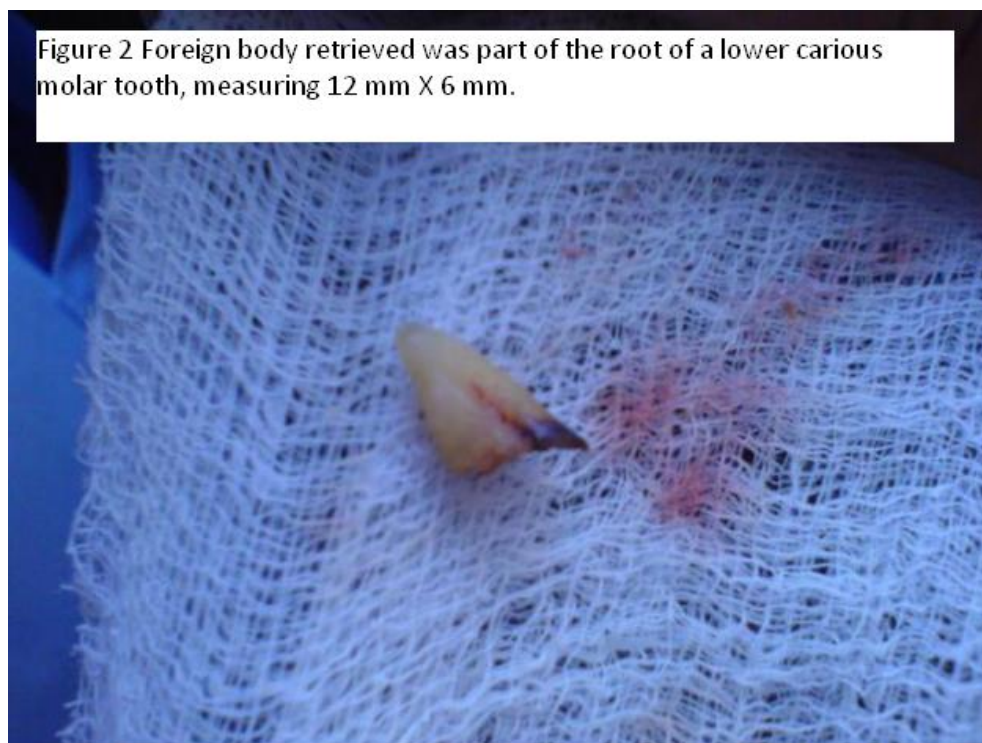
The peritonsillar space is an area of loose areolar tissue between the fibrous capsule of the palatine tonsil and superior constrictor muscle of pharynx. It extends anteroposteriorly to the tonsillar pillars, inferiorly to pyriform fossa and superiorly to the hard palate. Suppurative infection here causes formation of peritonsillar abscess. This may remain localized or extend to adjacent neck spaces. Cultures of the abscess show polymicrobial infection with the predominance of anaerobic bacteria.<sup>1</sup> A peritonsillar abscess usually results from suppurative infection of the tonsils or inadequately treated chronic tonsillitis but may also arise de novo without clinical evidence of tonsillar infection.

Other proposed etiologies include infection of the Weber's glands<sup>1</sup> or periodontal or dental infections.<sup>2</sup> Weber's glands are a group of minor salivary glands located in the supratonsillar space just above the tonsils in the soft palate, probably serving to clear the tonsillar area of any trapped debris. Tissue necrosis and formation of pus here causes scarring and obstruction of the ducts draining these glands, which then progress to abscess formation in the peritonsillar and supratonsillar spaces<sup>1</sup>.

Treatment options for peritonsillar abscess are needle drainage and / or incision and drainage



<http://emj.highwire.org/content/19/4/361.full>. Accessed March 18<sup>th</sup>, 2013.



with antibiotics and supportive treatment.<sup>1</sup> Because peritonsillar cellulitis is a transitional stage in the development of an abscess, the treatment is conservative. Immediate tonsillectomy is not recommended routinely for peritonsillar abscess and is reserved only for recurrent or unresolving cases or in patients with a strong indication for tonsillectomy like sleep apnoea or a history of recurrent tonsillitis<sup>3</sup>. A quinsy-tonsillectomy is of value in peritonsillar abscesses where antibiotics are inadequate to control infection especially in cases of recurrent tonsillitis or recurrent abscess and in children who cannot tolerate bed side drainage with a tendency of recurrence due to predisposition for recurrent tonsillitis<sup>4</sup>.

Tonsils are the most common site of foreign body lodgment in the upper digestive tract, where fish bones comprise the most common foreign body. Some unusual foreign bodies such as a sewing needle tip in tonsil have also been reported<sup>5</sup>. A case of metallic ring embedded in soft tissue pharynx for three years in a four year old child presenting as persistent halitosis unsuccessfully treated with antibiotics for upper respiratory infections and dental infections has also been reported<sup>6</sup>. In the case presented here, the etiology appears to be the remnant of an extracted lower third molar tooth which acted as a foreign body and resulted in a persistent infection in spite of an initial surgical drainage. After a search of the available literature we have been unable to find a similar instance of a foreign body acting as an etiological factor for PTA.

Our patient underwent a quinsy tonsillectomy as the abscess was deemed refractory to treatment, as she had already taken broad spectrum antibiotics for 15 days prior to the surgery and had undergone incision- drainage for the same. In hindsight, it was felt that just removal of the offending foreign body should have been enough and the tonsillectomy was unnecessary. However, it can be argued that the surgeons were not aware of the presence or even the possibility of presence of such a foreign body and were blindsided. This is precisely the message that we intend to convey, that in view of the above described case, a surgeon should consider the possibility of a foreign body (especially in patients with a history of dental procedures) in cases of peritonsillar abscesses not responding to aspiration/ incision and drainage.

### **Conclusion**

Peritonsillar abscess has a varied etiology. Based on the above case report a foreign body (loose carious tooth remnant) should also be considered especially in non-resolving cases. The patient may be spared an unnecessary tonsillectomy and its associated complications.

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