Case Report

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Unusual presentation of tonsillolith in a child

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ABSTRACT

Tonsilloliths are calcified structures that form in the palantine tonsillar crypts. Tonsilloliths are uncommon in pediatric age group and usually present with pain, referred pain (ear), foreign body sensation, abscess and halitosis. This interesting case present with expulsion of mysterious ladyfinger seeds like structures from oral cavity.

Keywords: Halitosis, Ladyfinger seeds, Tonsillolith

INTRODUCTION

Tonsilloliths or tonsil stones are calcified structures that form in the palantine tonsillar crypts. The calculi are made up of calcium, other salts, along with microorganisms and other unidentified material, that are likely to be caused by chronic irritation of the tonsil.

Tonsilloliths often are an incidental finding on physical examination but they can cause irritation, local pain, referred pain (to the ear), foreign body sensation, abscess and halitosis. ¹⁻³ This case has rare presentation with passing ladyfinger seeds like structure intermittently from oral cavity.

CASE REPORT

12 years boy visited with c/o mysterious ladyfinger seeds like structures expelling from mouth intermittently with bad breath from 6 months. For this, parents first consulted to local quack (bhopa) where they were told superstitious etiology and did some religious rituals with no benefit. Then they repeatedly consulted nearby

hospitals locally where patient was treated for URI and tonsillitis (considering exudate on tonsil). When patient visited to us, patient had only c/o passing ladyfinger seeds like structure, halitosis and no c/o pain, gritty sensation. On local examination of oral cavity, white spot on left tonsil was visible, poor oral hygiene without any signs of tonsillar inflammation or enlargement.



Figure 1 (a and b): Tonsillolith on left tonsil.

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There was no dental, gingival, palatal, nasal, pharyngeal abnormalities found. Patient was enquired whether those structure are egg like and soft in consistency but patient replied that those are small, irregular, firm, foul smelling structure. Patient expelled two relative larger tonsiloliths spontaneously and rest two tonsilloliths were removed by ENT surgeon.

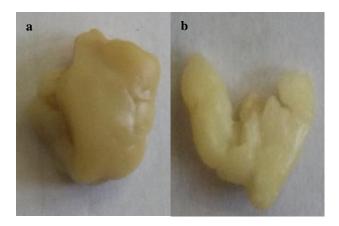


Figure 2 (a and b): Tonsillolith expelled, first size 2x2cm in max dimensions and second one is 1.5x1cm.

In follow up visit after 15 days, patient got rid of passing those calcified tiny tonsilloliths shread intermittently from tonsils.

DISCUSSION

Tonsilloliths are generally not common in the pediatric age range, but do occur more in the teenage years (typically after age 20). One study of 482 patients in Japan who were being evaluated for head and neck concerns, found only 6 pediatric patients with tonsilloliths of the 30 patients. Tonsilloliths are white or yellow colored stones, composed of calcium salts, oxalates, other magnesium salts and can contain ammonium radicals. They can be friable or hard as a stone. So, while tonsilloliths are more likely to be encountered in older patients, make sure that what we are calling an exudate is really that and not a tonsillolith.

A tonsillolith is a living biofilm. The bacteria form a three-dimensional structure with dormant bacteria being in the center to serve as a constant nidus of biofilm. Bacterias adhere to the tonsillar surface and secretes a slimy substance that holds the bacterias together in the tonsillar crypt. The adhesive substance is a polysaccharide that protects the bacteria against the body's immune system. Cell to cell signaling (quorum sensing) and communication with different bacteria enhances the biofilm formation. Matrix calcification also appears to give further protection to the bacteria biofilm. Aerobic and anaerobic microorganisms are present in tonsilloliths, with aerobic bacteria predominating on the external surface and anaerobic bacteria on the internal

area.5 The pathogenesis is thought to be due to repeated bouts of tonsillar inflammation. This can lead to fibrosis of the ducts of the tonsillar crypts and retention of debris which lead to bacterial overgrowth and deposition of inorganic salts from saliva. So, while they are rare in children but if the patient had multiple episodes of inflammation of the tonsils, then tonsilloliths may develop early. Tonsilloliths are usually asymptomatic but may present with pain during swallowing, referred pain to ear, foreign body sensation, foul breath, bad taste in mouth, occasionally detected on x ray or CT scan. In this case, history of extrusion of ladyfinger seeds like structures without other major complaint, was misleading and responsible for the delay in diagnosis. Although similarly larval stages of housefly can be seen in cases of oral myiasis, but they are photophobic and often tend to hide deep into tissues (perforation) for a suitable niche to develop into pupa.6

CONCLUSION

Diagnosis can be done by clinical examination but doubtful cases can be confirmed by imaging diagnostic techniques which will show radioopaque shadow. Tonsilloliths may require no therapy. Salt-water gargles help to release the stones. Most tonsilloliths may be removed manually under local anesthesia. Large stones may actually require surgical removal.

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