ISSN: 0975-3583,0976-2833 VOL15, ISSUE 05, 2024

CASE REPORT

A giant tonsillolith masquerading anoropharyngeal tumour

[1]Dr. Neetu Bajaj, [2]Dr. Aashi Dubey, [3]Dr. Vijay Kumawat, [4]Dr. Chandresh Dixit

[1]Associate Professor, [2,3,4]Post graduate resident, Department of Otorhinolaryngology, Bundelkhand Medical College, Sagar, MP, India

Corresponding author
Dr. Aashi Dubey
Post graduate resident, Department of Otorhinolaryngology, Bundelkhand Medical College, Sagar, MP, India
Email: aashi.dubey101@gmail.com

Received: 25 March, 2024 Accepted: 29 April, 2024

Introduction

Tonsilloliths, also referred to as tonsillar concretions or simplyliths, develop when calcium deposits form on shed cells and bacteria grow within the tonsillar or adenoidal crypts. Other proposed mechanisms include the presence of ectopic tonsillartissue or the calcification of minor salivary gland ducts, possibly leading to the formation of calculi or calcification of peritonsillar abscesses. They can occur in individuals with or without a history of inflammatory disorders affecting the tonsils or adenoids. Tonsilloliths typically appear as yellow or white stones composed of calcium salts like hydroxyapatite or calcium carbonate apatite, oxalates, magnesium salts, or ammonium radicals. The first documented mention of a tonsillolith dates back to Lang in 1560. While tonsilloliths can occur at any age, they most commonly present between 10 and 77 years, with an average age of 50 years. There is no reported gender preference. They affect up to 10% of the population, often associated with episodes of tonsillitis. Symptoms in affected individuals commonly include persistentcough, sore throat, halitosis, unpleasant taste, tonsillitis, difficulty swallowing, painful swallowing, or sensation of a foreign object in the throat. In rare cases, a large tonsillolith that remains hidden within tonsil tissue or mucosa may resemble a tumor when presenting as an oropharyngeal mass.

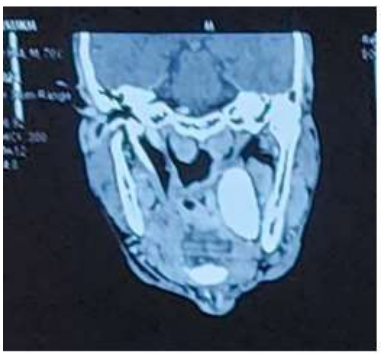
Case Report

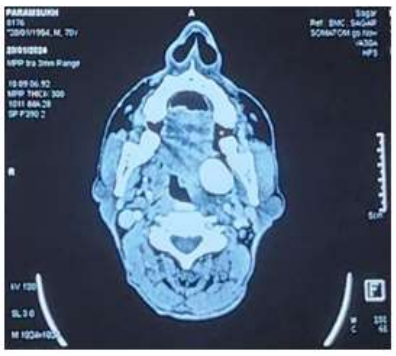
The patient, a 70 year old male, visited the otorhinolaryngologyOPD, with complaints of pain and foreign body sensation in throat for two months and swelling over left side of neck since one month. On examination of oral cavity, the left tonsil was hypertrophied grade 3/4 and the anterior pillar was congested.The base of tongue was normal. The left submandibular lymphnode ie. Level IB was significantly enlarged, 3×3 cm in size, firm to hard in consistency with reduced mobility. Indirect laryngoscopy was done and it was within normal limits. The patient had history of addiction to smoking and tobacco chewing.

The clinical presentation of the patient, along with the presence of a palpable lymph node, with the age and personal history of the patient raised suspicion of an oropharyngeal tumour.

ISSN: 0975-3583,0976-2833 VOL15, ISSUE 05, 2024

FNAC of the submandibular swelling was suggestive of reactive lymphadenitis. CECT neck was suggestive of a large well defined oval hyperdense lesion of size 40x23x22 mm seenin the left parapharyngeal region and tonsillar fossa, causing compression and displacement of the adjacent soft tissue plane. (? Dense calcification, large tonsillolith, calcified lymph node).





On exploration under general anaesthesia, giant tonsillolith ofsize 3x6 cm was removed from the left tonsillar fossa along with left tonsillectomy. The submandibular swelling also subsided thereafter and the patient recovered soon.

ISSN: 0975-3583,0976-2833 VOL15, ISSUE 05, 2024

Discussion

Tonsilloliths, also known as tonsillar stones, are clusters of calcareous materials found in the tonsillar crypts of the palatineor faucial tonsils. The precise process of their formation is a matter of debate, but they typically develop from calcified buildup of food particles, cellular debris, and microorganisms in the tonsillar crypts. The most widely accepted hypothesis fortheir formation involves the retention of caseous secretions inthese crypts, along with filaments of leptothrix buccal, a common oral saprophyte often associated with chronic purulent tonsillitis. Studies have also detected anaerobic bacteria in tonsilloliths, including eubacterium, fusobacterium, megasphere, and prevotella selenomonas, all of which are associated with sulfur production. Other factors contributing totheir formation include hyperactive salivary glands, tobacco and betel nut chewing, mucous secretions, intolerance of certain foods or dairy products, salivary stasis, hypercalcemia,and calcification of peritonsillar abscesses or obstructed secretory ducts of minor salivary glands.The calculi have also been documented in peritonsillar space, lateral pharyngeal walland explained on the basis of calcification of peritonsillar abscess, presence of ectopic tonsillar tissue, and calcification of the saliva in obstructed secretory ducts of the minor salivaryglands. The exact location of the tonsilloliths varies from different anatomical sites of the oropharynx. The large sized ones are usually found in the tonsillar tissue approximately in 67.79% and the tonsillar fossa in 21.2% and approximately 9%in palate and only 1% documented in the lingual tonsil.

Tonsilloliths can manifest with various symptoms, such as recurrent sore throat, halitosis, sensation of a foreign body in the throat, painful swallowing, and hoarseness. They are typically diagnosed by visualizing them in the tonsillar crypts, with the majority falling within the 2 to 5 mm range. While they are usually smaller than 8 mm, cases of larger, “giant” tonsilloliths have been reported.

Literature review shows that the largest tonsillolith was reported in a 12-year-old female child in the left tonsil andmeasured 4.2 × 3.6 × 2.1 cm.

Differential diagnoses for tonsilloliths include malignant neoplasms, calcified granulomatous disease, prominent pterygoid hamulus, intraosseous abnormalities, displacedteeth, and bone abnormalities derived from embryonic remnants.

CT imaging is essential for further characterization of such masses and to assess their size and extension into surrounding structures. In some cases, enlarged lymph nodes detected on imaging may raise suspicion for possible metastasis of an oropharyngeal neoplasm. Additionally, approximately 3% of tonsillolith cases are associated with kidney stones, gallstones, and Wharton's duct stones, suggesting a potential link to lithogenic diathesis. However, imaging of the kidneys, gallbladder, and submandibular salivary glands in this case ruled out such a possibility.

Treatment options for tonsilloliths include local excision by curettage, with larger or giant tonsilloliths potentially requiringremoval under local or general anesthesia. Tonsillectomy maybe necessary for definitive treatment, especially in cases associated with chronic tonsillitis or suspected malignancy.

Laser cryptolysis can be performed for recurrent tonsilloliths, reducing the surface area of the tonsils to prevent further calculus formation.In conclusion, tonsilloliths should be considered in the differential diagnosis of oropharyngeal masses, and proper imaging of the head and neck is crucial forcharacterization. Enlarged lymph nodes on imaging should raise suspicion for malignancy. Management of tonsilloliths canrange from conservative measures to surgical intervention, withtonsillectomy recommended if malignancy is suspected or for prevention of recurrence.

Conclusion

A tonsillolith should be considered among the differential diagnosis of an oropharyngeal mass.

ISSN: 0975-3583,0976-2833 VOL15, ISSUE 05, 2024

Proper imaging of headand neck should be done to characterise the mass. Since reactive lymphadenopathy has not been reported in cases oftonsilloliths, there should be suspicion of malignancy if there are enlarged lymph nodes found on imaging. Tonsilloliths canbe managed conservatively or they can be removed if the patient has distressing symptoms.Tonsillectomy should also be performed in the same sitting if there is any suspicion of malignancy and to prevent the recurrence.

References

1. Swain S: A Giant Tonsillolith: An Unusual Cause for Longstanding Foreign Body Sensation in Throat, April 2022TheJournal of Clinical and Scientific Research 49(1) DOI:10.4103/jss.jss_40_21
2. Krespi YP, Arora A, Longwell M, Nistico L, Hall-Stoodley L,de Beer D, et al. Tonsillolith: Not just a stone but a living biofilm. Otolaryngol Head Neck Surg 2009;141:316-21.
3. Gangaraj S, Maruthi N: A Case Report of Giant Tonsillolith10.5005/jp-journals-10003-1117
4. Pruet ChW, Duplan DA. Tonsil concretions and tonsilloliths.Otolaryngol Clin North Am 1987; 20:305-9