



# Lingual Tonsillolith Presented Mimic Impacted Fish Bone at Lingual Tonsil

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## Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

## Article Information

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Case Study

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## ABSTRACT

Lingual tonsilloliths commonly appear on CT and plain radiograph and superimpose nearby mandibular soft tissue. We presented a case of foreign body fish bone embedded in the base of tongue turns out to be lingual tonsillolith. A 41-year-old man presented with 2 weeks history of foreign body sensation in the throat with prior fish bone ingestion. Computed Tomography neck revealed small opacities embedded over right base of tongue of size. This rare case presentation illustrates the versatility of a CT neck in revealing unexpected pathologies.

**Keywords:** Lingual tonsillolith; fishbone; lingual tonsil.

## 1. INTRODUCTION

Lingual tonsilloliths commonly appear on CT and plain radiograph and superimpose nearby mandibular soft tissue. Albeit lingual tonsilloliths resembles other pathological calcifications such as submandibular sialoliths and lingual osseous cholistoma they can be

distinguish by thorough radiograph observation [1] (takashi).

Tonsilloliths can form in the tonsillar crypt, a niche comprising of food debris, desquamated epithelium and dead bacteria [2,3,4]. Calcium phosphate, calcium carbonate, and magnesium salts in saliva content accumulated around the

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niche forming tonsillolith (mendel, Balaji, demoura) subsequently grows by accumulation [5,4,6]. Tonsillolith can develop resulting of bacterial film biofilm and calcification [7] (kimm,\stoodley). The Lingual Tonsil is part of the Waldeyer ring, comprising of the Lingual tonsil, palatine tonsil, adenoid, and tubal tonsillar tissue which located next to the nasopharyngeal opening of the Eustachian tube. These bundles of lymphoid tissue are located at the aerodigestive tract entrance, where they seize and kills any bacteria or virus with which they come into contact. [8]

## 2. CASE PRESENTATION

A 41- years-old man presented with 2 weeks history of foreign body sensation in the throat with prior fish bone ingestion. He had sought

treatment and treated conservatively with course of antibiotic. However his symptoms persisted. Examinations of the oral cavity and flexible nasoendoscopy was unremarkable except there was gritty sensation over the right base of tongue.

However, no mass or foreign body seen. Neck radiographs showed no opacities or foreign body at base of tongue. Computed Tomography neck revealed small opacities embedded over right base of tongue measuring 0.5 x 0.5 cm (Fig. 1). Exploration under anaesthesia, direct laryngoscopy was performed. Incision at the base of tongue using sickle knife at right base of tongue (Fig. 2a) was made and 2 tiny calculi measuring 1mm each was removed (Fig. 2b) consistent with the CT findings.

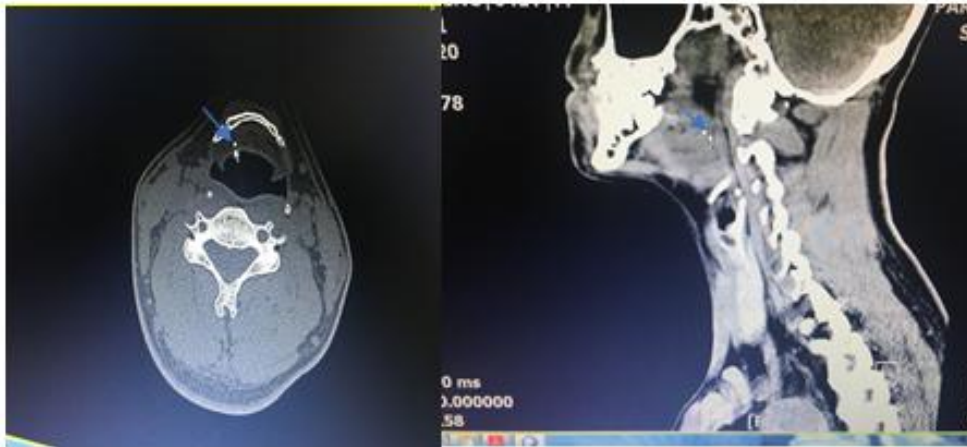


Fig. 1a. Axial view and Fig. 1b. Sagittal view CT non contrast showing whitish opacification lesion over right valleculae

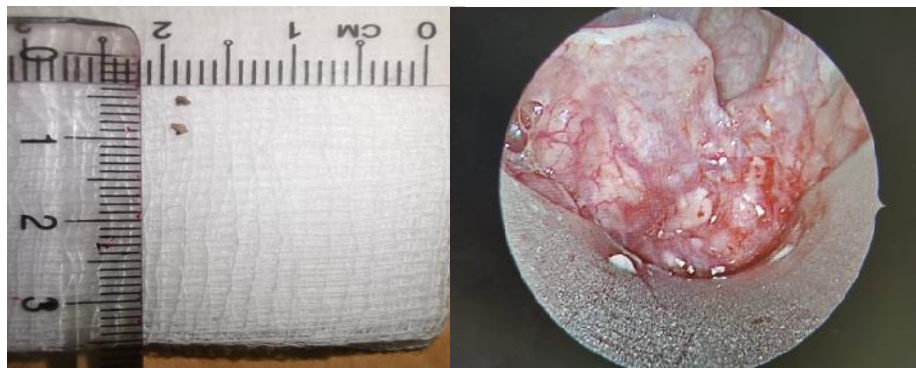


Fig. 2a. Two tiny calculi measuring 1 mm each and Fig. 2b. incision site over right valleculae

### 3. DISCUSSION

Lingual tonsillolith is not uncommon however presentation mimicking fish bone ingestion is rare. Patient maybe asymptomatic, or can have symptoms including sore throats, dysphagia, globus sensation, dyspnea, obstructive sleep apnea, dysgeusia, halitosis, and otalgia. In this case patient came with unusual presentation of lingual tonsillolith mimicking impacted fish bone at lingual tonsil. Management of lingual tonsillolith include saline rinsing but involvement of lingual tonsil best managed by releasing calcified body from tonsillar crypt by simple incision [2] (Lee). Hence, in the event of an oropharyngeal discomfort, clinicians should have suspicions of lingual tonsillolith as it is not uncommon. This rare case presentation illustrates the versatility of a CT neck in revealing unexpected pathologies.

Lingual tonsilloliths are an unusual incidental finding rarely reported. In view of the midline location of the lingual tonsillolith, panoramic examinations create ghost images. It should be included among the diagnostic possibilities when conventional plain radiographs show soft-tissue calcifications. Diagnostic accuracy is best achieved by CT scan. No treatment, other than periodic observation, is an option if there are no symptoms. Therefore in the event of oropharyngeal discomfort, all clinicians must have high suspicion index of lingual tonsillolith as it is unusual.

### 4. CONCLUSION

Lingual tonsilloliths may resemble other pathological calcifications such as submandibular sialoliths and lingual osseous cholelithoma, they can be differentiated by thorough radiographic examinations. In the events of calcified bodies detection near the base of tongue, lingual tonsilloliths should be included in the differential diagnoses.

### CONSENT

As per international standard or university standard, patient's consent has been collected and preserved by the authors.

### ETHICAL APPROVAL

It is not applicable.

### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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