

Case Report

An Unusual Etiology of Submandibular Sialadenitis, Migration of an Ingested Fish Bone to the Submandibular Gland: A Case Report

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Abstract:

Recurrent sialadenitis of submandibular gland can have multiple causes, one of the rare being foreign bodies. Motor vehicle accidents, assaults, bullet wounds and iatrogenic surgical fault are the most common causes of traumatic foreign bodies. Fish bone is one of the most common foreign bodies that gets lodged in the upper digestive tract, often located in the tonsil, base of tongue, epiglottis, pyriform fossa and esophagus, where it may be easily identified on routine inspection and removed. The forcible swallowing of food such as rice balls after ingesting fish bones by mistake may lead to the migration of the fish bone from the pharynx, throat or esophagus to the surrounding tissues. Migration most commonly occurs to the soft tissues of the neck, even to the thyroid gland, but migration to the submandibular gland has rarely been reported. Here, we present a case of submandibular sialadenitis due to unusual migration of ingested fish bone to submandibular gland. Foreign body ingestion may cause a series of complications and endanger a patient's life. Cases require high awareness and attentiveness on the part of the first physician to diagnose and manage the condition and appropriate health education should be imparted to the patient.

Key words: Submandibular sialadenitis, Foreign body migration, Fish bone.

Introduction:

Recurrent swelling of the submandibular gland can occur, mainly from obstructive disorders such as sialolithiasis and inflammatory disorders of the ductal system¹⁻³. Some other uncommon intraductal conditions, such as benign and malignant neoplasms, congenital malformations, cyst development and foreign bodies, can lead to mechanical blockage or

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disruption of the ductal system, stasis of salivation, and consequently, sialadenitis^{1,4-5}. Foreign bodies such as chicken or fish bones, plastic objects, wooden sticks and even pieces of grass have been described as rare causes of submandibular or neck masses⁶⁻⁷. A foreign body within the submandibular gland secondary to oral cavity trauma is a very rare entity. We wanted to emphasize this rare, unique, yet possible, cause of sialadenitis in a 50-year-old male patient and draw the reader's attention for a careful detection and management of foreign body.

Case report:

A 50 year-old-male patient admitted into the department of Otorhinolaryngology & Head-Neck surgery of Faridpur Medical College Hospital, Faridpur with the complaints of impaction of fish bone in the throat 2 ½ months back and he swallowed rice, mury (Puffed rice), banana and also introduced his finger within the oral cavity to remove the fish bone but failed. After two weeks he noticed swelling in the left submandibular region associated with pain and mild fever. After taking medicine, pain and fever was subsided but he began to feel foreign body sensation in his left submandibular region. He visited to the local hospital where examination of oral cavity, oropharynx was conducted but nothing was found. As his

symptoms were not relieved, he was admitted into Department of Otorhinolaryngology and Head-Neck surgery of FMCH. After thorough ENT examinations as no fish bone was found, USG of left submandibular region was done which showed a linear echogenic area (2.1cm) within submandibular gland surrounded by hypoechoic parenchyma and mildly enlarged submandibular gland. No definite solid or cystic lesion was seen in either lobe (Fig.1). The Computed tomography (CT) images showed a linear dense foreign body (fish bone) in the left submandibular region (Fig.2).

Excision of left submandibular gland was done under general anesthesia. A large fish bone (2.1cm) was found within the submandibular gland which was measured same as the USG & CT scan measurement (Fig.3).

The incision was healed by first intention and the suture was removed after one week. During month of follow up the patient noticed no symptoms of pain or foreign body sensation.



Figure 1: USG of left submandibular region showing a linear hyperechoic foreign body.

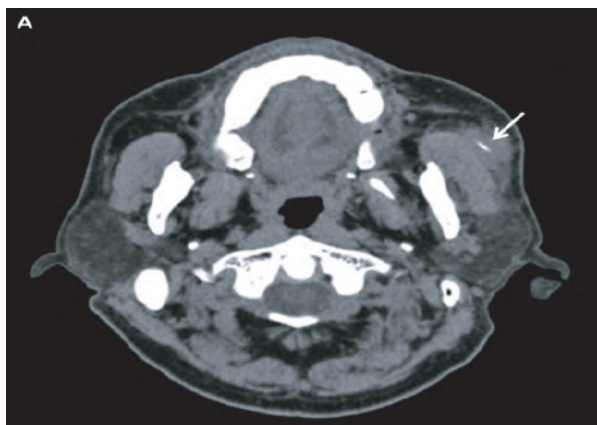


Figure 2: CT image showing a foreign body fish bone (arrow).

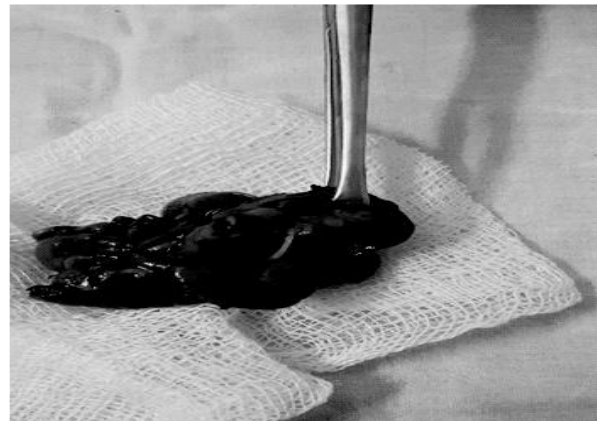


Figure 3: Resected Submandibular gland with fish bone.

Discussion:

Similar to this case, most patients undertake improper measures after ingestion of foreign bodies, such as swallowing rice balls, leeks and steamed bread. Owing to the feeling of the retained foreign body, this patient swallowed rice balls forcibly and also introduced his finger within the oral cavity to remove it, causing the foreign body to migrate. The patient experienced submandibular pain, swelling and mild fever.

In this situation, clinicians should consider possible foreign body migration. The doctor must not only focus on the throat and subsequently deny the existence of a foreign body from the laryngoscopy results. With no positive findings on throat examination ultrasonic scan or CT scan of neck is advisable.

In order to avoid the serious complications, doctors should fully explain the risks of not extracting the fish bone in time with suitable precautions and also stress on the need for follow-up visits.

Migration of fish bone to the submandibular gland must be considered as a differential diagnosis when a patient reports a history leading comprehensively to a diagnosis of submaxillary pain. Advanced imaging such as ultrasonic scanning or CT scanning may be conducted to confirm the diagnosis of a foreign body. Though migration of fish bone to submandibular gland is a rare entity, Chinese literature review and case report described a case in which a 58 year old women accidentally got a fish bone stuck in her pharynx and migrated to the right submandibular gland².

As shown in this case, it is not easy to find foreign body when lie in the submandibular gland. This condition may cause a series of complications and endangers a patient life^{8,9}.

Conclusion:

Unrecognized foreign bodies of submandibular gland can lead to chronic inflammation and require surgical excision. To avoid secondary problems and surgery, the first physicians must be aware and attentive to diagnose and manage the condition correctly. Proper history and careful examination can lead to better diagnosis and a more conservative management. Most of all, it is necessary to inform people of the importance of eating fish carefully.

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