

OLGU BİLDİRİSİ / CASE REPORT

Fish bone in the tongue causing lingual abscess

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Lingual abseye neden olan kılçık

Kolaylıkla görülebilmesi ve çoğunlukla hastaların kendileri tarafından çıkarılabilmesi nedeniyle, dil anteriorunda balık kılçığı yabancı cisim olarak nadiren probleme yol açar. Ancak kılçık tamamen dil içine gömüldüğünde bazı zorluklar yaşanabilir. Böyle bir durumda, sunulan olguda karşılaşılan lingual abse gibi komplikasyonlara yol açmamak amacıyla, kılçığın spontan ekstrüzyonu beklenmemeli ve süratle çıkarılma işlemine geçilmelidir.

Anahtar Sözcükler: Yabancı cisim, dil, oral kavite, abse.

Abstract

Since it is usually seen easily and removed by patients themselves, a fish bone as a foreign body in the anterior tongue rarely leads to problems. But when the fish bone is embedded totally in the tongue it might cause some difficulties. In such a situation it is not adequate to wait for its spontaneous extrusion and rapid removal is recommended for preventing complications such as a lingual abscess as in the reported case.

Key Words: Foreign body, tongue, oral cavity, abscess.

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Introduction

The commonest foreign bodies found in the upper aerodigestive tract are fish bones. The majority lodge in the palatine tonsil, base of the tongue and vallecula. Less common sites of impaction are the hypopharynx and esophagus.¹ It is not difficult to remove the fish bones from oropharynx when they are detected during routine examination. But if they cannot be localized even with reevaluations, endoscopic or radiologic examinations are necessary especially for the patients whose complaints persist.²

The rarity of patients presenting with fish bones in the oral cavity especially in the anterior tongue is due to the sensitivity of its mucosa to pain and to the easiness of removal by the patient.³ In this re-

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port we present a case with a fish bone penetrating the anterior tongue deeply and causing a lingual abscess.

Case Report

A 57-year-old male presented with pain on the right side of his tongue. The patient had been evaluated in the emergency department because of a deep tongue pain occurring immediately after a fish bone ingestion 3 days ago. He had been prescribed only an antiseptic mouthwash since the physical examination and plain radiographies had not revealed any foreign bodies in the upper aerodigestive tract.

During examination the patient was cooperative and breathing comfortably. In the oral cavity the right posterior side of the mobile tongue was edematous and painful during palpation with no fluctuance. While the right oropharynx and base of the tongue were also edematous, a foreign body was not detected during indirect laryngoscopy and flexible endoscopy of the hypopharynx and larynx.

As the repeated posteroanterior and lateral soft tissue X-ray of the neck did not reveal any foreign bodies, direct laryngoscopy and rigid esophagoscopy under general anesthesia were performed which failed to identify any fish bones. Treatment with intravenous antibiotics and antiinflammatory drugs were started. As the pain and discomfort of the patient and the appearance of edematous tongue persisted, a computed tomography (CT) scan with intravenous contrast material was performed. The CT examination demonstrated a thin hyperdensity in the right side of the tongue and floor of the mouth resembling an impacted fish bone with inflammatory changes in the surrounding soft tissues (Figure 1). As the symptoms disappeared in a few days, the patient was discharged and called for clinical and radiological follow up examinations.

The patient had only a minimal sensitivity during eating on the right side of the tongue at the first week of the follow up. But he presented with dysphagia and odynophagia 3 weeks later. Oral cavity exa-



Figure 1. Axial computed tomogram at level of anterior tongue with a foreign body on the right side.

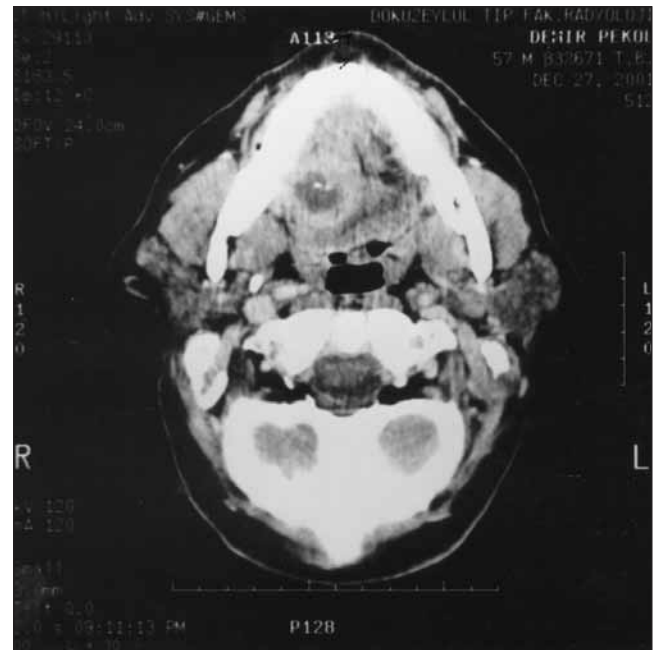


Figure 2. Axial computed tomogram with contrast at level of anterior tongue. A lingual abscess surrounding the foreign body is demonstrated as rim-enhanced lesion with central hypodense cavity.

mination revealed a more swollen and painful tongue which affected his speech articulation with no respiratory distress. Repeated CT examination showed the same thin foreign body in a rim-enhanced lesion revealing an abscess (Figure 2). Intravenous antibiotics were started again and the patient was taken to operation. Under general anesthesia a 2 cm long longitudinal incision was made on the right lateral side of the tongue. Using fine hemostats, the muscle fibers were dissected and a fish bone measuring 14x2 mm was found. The postoperative course was uneventful and on subsequent examinations the tongue had healed well.

Discussion

Foreign bodies in the oral cavity are very rare. Some metal objects and teeth are the most reported foreign bodies usually associated with some type of trauma.^{3,5} Although the fish bone is the most frequent foreign body of the upper aerodigestive tract, they are impacted most often in the oropharynx followed by the esophagus.¹ Review of the literature reveals only three case reports associated with fish bones impacted in the anterior 2/3 tongue which required surgical management.^{3,6,7}

A careful history and an accurate examination are very important for the patient presenting with fish bone ingestion. Re-examinations are necessary if it can not be found or the complaints of the patient persist. It was reported that if the foreign body was located above the cricopharyngeus, 95% of patients were able to indicate its location accurately.⁸ And this was especially valid for the fish bones lodging in the tonsillar fossa and posterior third of the tongue.^{8,9} Sensation of a foreign body, odynophagia, dysphagia, persistent cough, voice alteration and excessive drooling are the most frequent symptoms of foreign body ingestion.¹

In the traditional management of the fish bone ingestion, radiologic assessment with posteroanterior and lateral X-ray of the neck and chest will follow the physical examination if the foreign body can not be found with inspection of the oral cavity, oropharynx and laryngopharynx. But plain radiographs of the neck and chest may be unsatisfactory in identifying the foreign bodies especially when the fish bones are very thin.¹⁰ In a study by Sundgren et al., 71% of the fish bones could not be identified by plain films.² Sing et al., in their series, found that 48% of animal bones, mainly fish bones were radiolucent.¹¹ It is a well known fact that interpretation of plain films may be difficult because of changing radiopacity of the bones of different fish species and calcification of the thyroid, cricoid, triticeous cartilages, and the prevertebral ligament by aging.^{1,12,13} The repeated plain X-rays of our patient were also normal.

Another method to detect foreign bodies in the upper digestive tract is barium study. But it also seems to be unsatisfactory in detecting an ingested fish bone with high false positive and false negative rates.^{10,13,14} Another disadvantage of this method is the coating of the contrast medium on the foreign bodies which makes the endoscopic removal more difficult.^{1,10}

For the patient with a strong suspicion of a fish bone impaction whose findings on examination and X-ray are normal, the following step is somewhat controversial. While rigid endoscopy under general anesthesia has been preferred in traditional approach, in recent years CT scanning is recommended before it. The reason for this is the necessity of endoscopy being performed under general anesthesia and the 0.15 - 0.5% risk of perforation during the procedure.^{2,10,15} The high sensitivity and specificity of CT scan in detecting small and thin foreign bodies like fish and chicken bones is shown in many studies.^{10,13,15} Besides revealing the existence and location of the foreign body, another advantage of CT is the demonstration of destruction or inflammation in the neighboring structures or tissues.^{1,13}

In our patient, plain neck radiographs were negative as well as direct oral cavity examination, indirect laryngoscopy and flexible endoscopy in identifying the suspected foreign body. Rigid endoscopy performed under general anesthesia also failed to reveal the foreign body. As the last step, CT scan was performed and the foreign body was detected.

Rapid removal of a fish bone impacted in hypopharynx or esophagus is necessary in order to avoid a foreign body induced perforation or a complication with migration.^{11,16} But in our patient, the detection of the fish bone deep in the tongue by CT scan and rapid regression of symptoms by medical therapy made us prefer to follow up the patient at the first presentation. Thinking that the fish bone in the tongue would not cause a complication since tongue does not have a lumen but is a solid organ, spontaneous extrusion of the fish bone or resorption with a lower probability was expected. But the repeated infection leading to an abscess formation in a short time made the surgical removal necessary.

In conclusion, the fish bone which is the most frequent foreign body of the upper aerodigestive tract is very rarely seen in the tongue. If there is a history of fish bone ingestion, the sensitivity, pain, and swelling of the tongue are strong indicators of impaction in the tongue. CT examination is necessary when the plain X-rays are negative in suspicion of a fish bone in the tongue. In the case in whom the fish bone is detected in the tongue, the probability of an abscess formation should be taken into consideration and the foreign body should be removed rapidly.

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Conflict of interest statement:

No conflicts declared.

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