Migrating Extraluminal Foreign Body Hypopharynx

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Introduction

Foreign bodies of pharynx, oesophagus, larynx, trachea and bronchus are encountered in otolaryngology practice. At times these foreign bodies, if sharp, can pierce the wall of these structures and may lay extraluminally either in the wall of these structures or in the soft tissues of neck [1, 2]. Though these are rare occurrences, prompt diagnosis and appropriate treatment should be instituted to avoid complications.

Case Report

A 45 year old lady presented to the otolaryngology department with the history of pain in the right side of the neck (in the jugulodigastric region) of seven months duration. She gave the history of probable foreign body ingestion along with chicken and rice meal seven months ago. During this meal she had developed a foreign body sensation and intense pain in the throat, more on the right side. She tried to swallow the foreign body with further boluses of rice, but the foreign body sensation was not relieved. She reported to an otolaryngology centre with these complaints the same day. Evaluation with radiograph neck and computed tomography (CT) neck revealed a foreign body in the hypopharynx. Direct laryngoscopy did not reveal any abnormality, such as a foreign body, any ulcer or mucosal erythema. She developed a swelling on the right upper neck the next day. It subsided with conservative management. She remained symptom free for next one month but developed persistent pain on the right side of neck which was aggravated on deglutition.

On examination she had tenderness in the right jugulodigastric region with a firm, tender, 1x1cm, jugulodigastric lymphnode. There was no swelling in the neck. Indirect laryngoscopy did not reveal any abnormality. Evaluation with radiograph neck anteroposterior and lateral views (Fig. 1) revealed a thin, hyperintense foreign body lying in horizontal orientation at the level of fourth cervical vertebra (C4) protruding more on right side. Multidetector computed tomography (MDCT) scan of neck clearly revealed a 2.9 cm long, metallic density, well defined, linear foreign body lying in the transverse orientation embedded in the posterior

pharyngeal wall of the laryngopharynx at the level of the body of C4. It was jutting more on the right side, suggestive of extraluminal migration of the foreign body (Fig. 2).

Hypopharyngoscopy did not reveal any abnormality such as foreign body, oedema, ulceration or mucosal erythema. Persistent symptoms such as intense pain in the neck and foreign body sensation in the throat warranted removal of the foreign body. As such, migrating extraluminal hypopharyngeal foreign bodies have potential for suppurative and vascular complications. She was taken up for lateral neck exploration by external cervical approach. Vertical incision anterior to sternocleidomastoid was employed on the right side (Fig. 3). A wire like foreign body, 3 cm in length (Fig. 4) was removed from the posterior wall of the hypopharynx. Post operative period was uneventful and she became symptom free.

Discussion

Hypopharyngeal foreign bodies are usually found intraluminally. However there have been a few interesting case reports of extraluminal migration of foreign bodies which can either penetrate intramurally in the wall of hypopharynx or in the soft tissues of neck [1-3]. Transversely oriented foreign bodies are more prone to perforate the wall of the hypopharynx. This happens due to the contractions of hypopharynx during deglutition which forces the foreign body to penetrate the wall. This occurred in our case too.

Migrating pharyngeal extraluminal foreign bodies need careful evaluation. Patient may become symptom free after initial event of foreign body penetration or develop persistent symptoms due to foreign body lodgment per se or its complications thereof. They may cause suppurative complications such as deep neck abscesses, mediastinitis [4] or vascular complications due to penetration of carotid artery, its branches and the internal jugular vein [5]. A case of thyroid gland penetration by a migrating foreign body with subsequent abscess of thyroid lobe has been reported for which thyroid

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Fig. 1 : Radiograph neck (AP view) showing foreign body lying in transverse orientation.

Fig. 2 : CT Neck (coronal cut) showing transversely oriented foreign body at C4 level vertebra extraluminal to hypopharynx.

Fig. 3 : Foreign body (metallic wire) being extracted from posterior wall of hypopharynx.

lobectomy was done [6]. Evaluation of these cases with radiograph neck can show the presence of a foreign body if it is radioopaque. Diagnosis and the exact location of foreign body can be established with CT scan of neck which provides a roadmap for surgical intervention.

These cases have been managed variedly. Microlaryngoscopic removal is possible if foreign body is partially migrated and embedded [7]. Hence a careful hypopharyngoscopy initially is of paramount importance. In asymptomatic patient, foreign body removal can be deferred and the patient kept under regular follow-up [8]. Surgical intervention by lateral neck exploration is indicated in symptomatic patients [9].

To conclude pharyngeal extraluminal migrating foreign bodies are uncommon occurrences. Usually patient presents with the history of foreign body ingestion with meals. A careful radiological and endoscopic evaluation detects extraluminal migration of foreign bodies. Symptomatic patients and those with complications should undergo surgical removal. The present case is unusual in a way that she developed neck cellulitis following the initial episode. Although initial radiological and endoscopic evaluation at another centre did reveal a metallic foreign body in hypopharyngeal wall, she was managed conservatively. Hence, the patient remained symptomatic for almost seven months with persistent pain in the neck.

A well deserved surgical intervention in this rare case of migrating foreign body hypopharynx mitigated her

symptoms altogether.

Conflicts of Interest

None identified

References

1. Vadhera R, Gulati SP, Garg A, Goyal R, Ghai A. Extraluminal hypopharyngeal foreign body. *Indian Journal of Otolaryngology and Head and Neck surgery* 2009; 61: 76-8.
2. Templer JW, Baker BB. Penetrating foreign bodies in the hypopharynx. *Ear Nose Throat Journal* 1977; 56: 341-4.
3. Murthy PSN, Bipin T V, Ranjit R, Murty K D, George V, Mathew KJ. Extraluminal migration of swallowed foreign body into the neck. *American Journal of Otolaryngology* 1995; 16: 213-5.
4. Karol C, Slobodan M, Jovancevic L. Complicated hypopharyngeal perforation caused by a foreign body. *Medicinski pregled* 2007; 60: 391-6.
5. Chung SM, Kim HS, Park EH. Migrating pharyngeal foreign bodies: a series of four cases of saw toothed fish bones. *Euro Arch Otorhinolaryngol* 2008; 265: 1125-9.
6. Al Muhanna A, Abu Chra K A, Dashti H, Behbehani A, Al-Naqeeb N. Thyroid lobectomy for removal of fish bone. *The Journal of Laryngology and Otology* 1990; 104: 511-2.
7. Shu Min-Tsan, Leu Yi-Shing. Microscopic removal of an embedded foreign body from the hypopharynx: Report of two cases. *Ear Nose and Throat Journal* 2001; 80: 889-90.
8. Mehta AK, Panwar SS, Verma RK. Retropharyngeal foreign body. *MJAFI* 2004; 60: 390-1.
9. Osinubi OA, Osiname A I, Pal A, Lonsdale R J, Butcher C. Foreign body in the throat migrating through the common carotid artery. *The Journal of Laryngology and Otology* 1996; 110: 793-5.