Case Report

Migrated Foreign Body Neck

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Abstract Foreign bodies of pharynx, oesophagus, larynx, trachea, and bronchus are most frequently encountered emergency 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 or in the soft tissues of neck. Though these are rare occurrences, prompt diagnosis and appropriate treatment should be instituted to avoid complications. We present here a case of an ingested fishbone which migrated from the hypopharynx and presented as a neck abscess with the foreign body on the verge of extrusion. It was successfully removed, the abscess drained, and the patient recovered completely.

Keywords migrated foreign body neck

1 Introduction

In literature, various cases have been described where foreign bodies have been ingested and have lodged in the upper aero digestive tract, but only a few of these foreign bodies have perforated the oesophagus and an even smaller number of these have migrated extraluminally [7]. Fish bones constitute more than 85% of all foreign bodies [1]. There have been rare cases reported, in which the foreign body actually exits through a puncture wound in the skin of the neck [6]. Here we report a case of foreign body near extrusion through the skin. If untreated, these migratory foreign bodies may result in life threatening suppurative or vascular complications. The specific nature of the symptoms of course is very helpful in localizing the site of the foreign body. Endoscopic findings of ulceration, oedema, and laceration should lead to the suspicion of migration [8]. A CT scan utilizing fine cuts is invaluable in localizing the foreign body. Exploration of the neck via an external approach to remove the foreign body is the recommended treatment. The X ray C arm can be helpful during the procedure.

2 Case report

We report a case of a 55-year-old lady who presented to the otorhinolaryngology department with the complaint of accidental ingestion of fish bone two weeks back. She attempted to remove the fishbone herself by putting a finger in the throat, but was unable to do so. She continued to have pain and odynophagia for a few days after this episode, but did not seek medical attention. The symptoms subsided but after about a week she noticed a painful swelling on the left side of the neck which gradually increased in size. She also complained of fever but no odynophagia. On examination, the vital signs were found to be normal. Oral cavity and oropharyngeal examination was normal. Indirect laryngoscopy and direct flexible laryngoscopy were normal. There was a large tender 4 × 4 cm swelling on the left side of neck with redness of the skin and raised temperature. There was a punctate lesion at the apex of the swelling (Figure 1). Neck movements were painful, but not restricted. Laryngeal crepitus was present. Systemic examination was normal. The patient was investigated. The X-ray of neck in anterioposterior view showed a radio opaque linear shadow lying horizontally at the level of C3–C4, which was suggestive of a migrated foreign body—fishbone.

The punctate lesion was explored by a fine forceps and was found to be a 3.1 cm long fish bone with serrated margins (Figure 2). Incision and drainage was done of the abscess. The patient was put on oral antibiotics and gradually improved with daily dressings on an outpatient basis and became asymptomatic.

3 Discussion

The patient came with a history of fish bone ingestion followed by a symptom free period. She presented to us with a neck abscess and we found the foreign body within the abscess cavity about to extrude. Ingested foreign bodies are usually found intraluminally. A majority of ingested foreign bodies pass through the gastrointestinal tract uneventfully. Some of the foreign bodies which are ingested get impacted in the tonsils or at the base of the tongue or the vallecula and can be easily removed. In about 5% of the cases, the foreign body becomes lodged at the cricopharynx or at one of the other constrictions along the oesophagus, requiring a rigid oesophagoscopy under general anaesthesia for removal [4].
The number of ingested foreign bodies that perforate into the aero digestive tract is small and an even smaller number of foreign bodies migrate to the extra luminal tissues [7]. In some instances, the foreign body can migrate completely through the oesophageal wall and can become impacted in the soft tissues of the neck. “Migrating foreign bodies” is the term which is used for such cases. Migration is said to have occurred in the event of a negative rigid endoscopy and in the presence of a foreign body on radiography [1].

In the Remsen et al. series, 321 cases of penetrating foreign bodies were reviewed from literature and only 43 were found extraluminally [5]. They found that the sharper the foreign body is, the higher the risk of penetration. Chee and Sethi reported a series of 24 migrated foreign bodies in the neck. All of the foreign bodies in their series were sharp and linear [1]. The risk of penetration is also influenced by the orientation of the foreign body. Horizontally oriented foreign bodies are more likely to penetrate. Within the ENT sphere, typically fish bones have been reported to cause neck abscesses. This happens due to the contractions of hypopharynx during deglutition which forces the fish bone to penetrate the wall. The migration through the entire pharyngeal wall, ending in a superficial cervical abscess as seen in this case, is uncommon. Migrating pharyngeal extra luminal foreign bodies need a careful evaluation. The patient may become symptom free after initial event of foreign body penetration as happened in our case or develops persistent symptoms due to foreign body lodgement per se or its complications thereof. They may cause suppurative complications such as deep neck abscesses, mediastinitis or vascular complications due to penetration of carotid artery, its branches, and the internal jugular vein [8]. A case of thyroid gland penetration by a migrating foreign body with subsequent abscess of thyroid lobe has been reported for which thyroid lobectomy was done [2].

Evaluation of these cases with radiograph neck can show the presence of a foreign body if it is radio opaque. Diagnosis and the exact location of foreign body can be established with CT scan of neck which provides a roadmap for surgical intervention and helps to estimate the extent of the damage done [4]. The present case was simple as the foreign body was on the verge of extrusion and hence did not require CT scan. A finding of laceration, oedema, or ulceration on direct laryngoscopy or oesophagoscopy should raise the level of suspicion of a perforating foreign body [8].

Management involves the exploration of the neck by an external approach. In practice, this is often a difficult task. The main difficulty is the localization of the foreign body in the soft tissue, after which removal is usually simple. The position of the head and neck at surgery may be different from that when CT scan was done, as the soft tissues of the neck are mobile with respect to the bony and cartilaginous structures. The foreign body at surgery may not be located exactly where it was shown to be in the CT scan [4]. Therefore the use of the C-arm to localize the foreign body in the neck intra-operatively is recommended [3].

To conclude, extra luminal migrating foreign bodies are uncommon occurrences. Usually, the patient presents with the history of foreign body ingestion with meals. A careful radiological and endoscopic evaluation detects extra luminal migration. Symptomatic patients and those with complications should undergo surgical removal at the earliest. The present case is unusual in that the patient was completely asymptomatic during the intervening period and after over a week, fortunately she presented with a neck abscess with the foreign body in near extrusion, making exploration and management simple.

References


