

Self-Extrusion of Unknowingly Ingested Sewing Needle through the Skin of Neck

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ABSTRACT

Foreign body ingestion is a common presentation but the extraluminal migration of a foreign body is rare. A 46-year-old man presented with protruded sharp swelling left side of neck, X-rays and CT scan of the neck showed a needle migrating from the pyriform fossa to the skin. Carotid angiography was also done to see the relations of foreign body with great vessels. Transcutaneous removal of foreign body was done under general anesthesia. The migrated foreign body was a sewing needle which patient unknowingly swallowed two days back. Migrated ingested foreign bodies from the upper digestive tract have the potential to cause life-threatening complications. Cases of spontaneous expulsion of ingested foreign bodies to the skin of the neck are quite rare.

Keywords: Foreign Body; Migratory Foreign Body; Ingested Sewing Needle; Transcutaneous Extrusion of Foreign Body; Self Extrusion of Foreign Body

1. Introduction

Sharp foreign bodies such as fish bones, dentures, wires, and needles have a tendency to stick in the mucosa of pharynx and the gastrointestinal tract. Rarer outcomes for ingested foreign bodies include migration of the foreign bodies into the soft tissues of the neck [1] or even the mediastinum [2]. A migrated foreign body has the potential to cause suppurative as well as vascular complications [3]. Spontaneous extrusion of an ingested foreign body via the skin of the neck has rarely been reported.

Commonly migrated foreign bodies reported are fish bones from the population dependent on sea foods; uncommon are needles, toothpicks, wires, hairpin and dentures [3-5]. These have been found at various sites including the thyroid gland [6], common carotid artery [7], and mediastinum [2]. These foreign bodies in the neck had caused deep neck abscess [3,4], haematoma [3], thyroid swelling [6], injury to vessels [3,7,8] and even pseudoaneurysm of aorta [7].

A migrated foreign body usually diagnosed with negative endoscopy with positive radiology cases. Rarely these cases first present with complication due to migration. In such situations, a CT scan is necessary to localize the foreign body and exclude suppurative and vascular complications [1,4].

2. Case Report

A 46-year-old male patient presented to us with a sharp protruded swelling left side of the neck for 6 hrs (**Figure 1**). The protrusion was at the level of cricoid cartilage 1.5 cm left to midline. Patient reported slight pain in throat for 2 days. Indirect laryngoscopy and telelaryngoscopic examination was normal and no foreign body could be visualized. No bleeding spot identified.

PA and lateral skiagram showed presence of radio-opaque metallic foreign body suggesting a sewing needle (**Figures 2(a)** and **(b)**). The foreign body appeared to be migrating from left pyriform fossa in the soft tissue of the neck. Patient recollected the possibility of presence of sewing needle in some sweets placed on a paper. He folded the paper and had it directly in his mouth. Patient has not noticed the presence of needle but experienced some pain in throat after that.

A contrast enhanced CT scan neck was done to see the relationship of foreign body to great vessels. CT scan showed the foreign body tracked medial and distant to great vessels (**Figure 3**). As the sharp end of foreign body was protruding through skin; transcutaneous removal of foreign body was planned. Surgery was done under general anesthesia. Small incision made at the protrusion site, sharp end of foreign body needle identified



Figure 1. Sharp projection by foreign body.

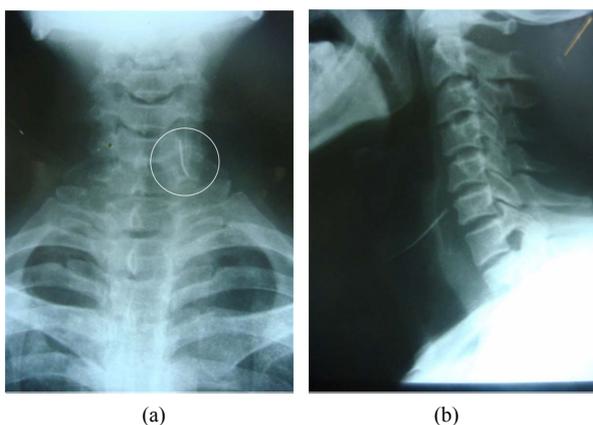


Figure 2. (a), (b) PA & lateral skiagram showing position of foreign body.



Figure 3. CT scan axial cut showing the path taken by foreign body sewing needle from apex of left pyriform fossa to skin of neck.

in subcutaneous tissue and foreign body was delivered out gently (Figure 4). Foreign body was a slightly bent sewing needle of 4 cm length (Figure 5). Single stitch with 3-0 Ethilon placed to close the wound. Postopera-



Figure 4. Transcutaneous removal of foreign body.



Figure 5. Foreign body sewing needle.

tive recovery was uneventful.

3. Discussion

Foreign body ingestion is a common presentation. Commonly children present with foreign body coin ingestion while in adults usual foreign bodies are fish bone, meat bolus and dentures. Migration of foreign body usually takes 24 - 72 hrs and usually are forgotten cases or not taken seriously by patients or not properly investigated. Usually migration is noticed after a negative endoscopy with positive skiagram [4].

Most ingested foreign bodies pass through the gastrointestinal tract uneventfully within one week [5]. One of the uncommon complications of ingested foreign bodies is migration, which has the potential to cause morbidity and mortality [4,5].

Chee *et al.* in a retrospective study found 24 patients with migrated fish bones in Singapore General Hospital [4]. Chung *et al.* presented 4 cases of migrated fish bones to the neck. In the first case, this caused a recurrent deep neck infection for 2 years; in the second case, there was penetration of the facial artery, in third, there was a hematoma of the floor of the mouth and in fourth case, there was a retropharyngeal abscess [3]. Goh *et al.* reported 4 cases of transesophageal migration of fish bone into thyroid gland [6]. Migration of ingested foreign body to mediastinum [2], liver [5], mesentery [9], and even external iliac vein [10] has been reported. The me-

chanism of migration is thought to be due to movement of neck muscle and viscera during voluntary or involuntary movements [11]. Large foreign bodies such as fish bones, pins or wires are assisted in their migration by contraction of neck muscle especially the cricopharyngeus muscle during swallowing. The shapes of the foreign bodies also contribute to the rate of migration [11].

Tan AK *et al.* have suggested a preoperative CT scan of the neck before attempting removal of foreign body in such cases as it tells about the path taken by the foreign body in migrating to the skin and excludes vascular complications such as a pseudoaneurysm of the great vessels of the neck, or the foreign body embedded in great vessels, removal of which could trigger a fatal haemorrhage [1]. CT scan also rules out suppurative complications such as a deep neck abscess [3].

4. Conclusion

Self-extrusion of a migrated ingested foreign body via the skin of the neck can be a result of neglected or undiagnosed foreign body and is indeed a rare occurrence. CT scan of the neck helps in early diagnosis of such misplaced or suspected foreign bodies and to planning for surgery. CT also helps in diagnosing any complication caused by the foreign body migration or impending complication which might occur during removal. Lastly a foreign body peeping out of the neck should not be pulled casually as fatal complication may occur.

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