Migration of Long Standing Fish Bone to Subcutaneous Tissues of the Neck: An Unusual Presentation

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Fish bone is one of the most common foreign bodies encountered in the upper aerodigestive tract region. Owing to its trivial size, smooth surface, and sharp ends, it has a great propensity to migrate in the neck and adjoining structures. Long standing migrated foreign bodies can cause devastating complications like neck abscess and injuries to the major blood vessels. Herein, we report a rare case of long-standing fish bone, which migrated to the subcutaneous tissues of the neck. The foreign body bypassed all the vital structures and was observed as a projection in the skin of the patient's neck. A careful history and a detailed clinico-radiographic investigation helped to locate the bone and aided in its successful removal.

Keywords: Foreign bodies, Neck, Pain, Ultrasonography

INTRODUCTION

Foreign bodies are commonly encountered in the otorhinolaryngology clinics. They can present with variable signs and symptoms depending on their duration in the body. Foreign objects lodged in the neck region have a tendency to migrate owing to the various active and passive muscular movements in this region. Majority of the ingested blunt foreign objects can be asymptomatic without causing much harm to the patients but a few can cause severe morbidity and mortality by causing injury to the adjacent vital structures. Sharp, small and smooth objects with minimal mineralization like tiny fish bones can escape the sight of the radiologist and surgeon and can pose an immense diagnostic dilemma. A careful clinico-radiographic investigation above an elaborate history can be of enormous help to the surgeons in locating the foreign object and carefully removing them. Herein, we report a very rare case presentation of a foreign body (fish bone), that migrated extraluminally without harming the nearby blood vessels and nerves and was found latent in left side of the neck projecting outward in the skin. The fish bone was precisely located and judiciously removed by transcervical approach.

CASE REPORT

A 40-year-old female patient presented to our institute with a chief complaint of pain on the left side of her neck since 2 weeks. The pain was sharp in nature and aggravated on swallowing. She also complained of a small swelling and a pointy projection on the left side of her lower neck since the same time. On detailed illustration of the history, she reported to have ingested a fish bone 6 months back which had resulted in acute throat pain for which she had consulted a local physician. She had taken medication for the pain and reportedly became asymptomatic consequently.

On examination, a pointy projection was observed on the left side of her lower neck which was tender on palpation. The remaining throat examination and indirect laryngoscopy was normal. X-ray neck was done which did not reveal any significant pathological lesion in the neck. To explore further, ultrasonography of neck was carried out which exhibited a small fluid filled collection on the left side of strap muscles and a thin linear pointed object. Computed tomography (CT) scan was then done to evaluate the fluid collection and precisely locate the

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sharp object and find its relationship with the adjacent vital structures. CT scan demonstrated a thin linear sharp foreign body measuring 2 cm in maximum dimensions on the left side of anterior neck piercing the strap muscles and pointing subcutaneously with small pocket of fluid collection around it (Figure 1). Thus, correlating the clinical and radiographic findings, a diagnosis of migrated foreign body (fish bone) was made. The foreign body (fish bone) was carefully removed surgically under general anesthesia by trans-cervical approach (Figure 2). The post-operative recovery was uneventful and the patient totally relieved of the presenting symptoms.

DISCUSSION

Foreign bodies are usually encountered in the upper aerodigestive tract. Fish bones are one of the most common foreign bodies confronted in routine otorhinolaryngology practice. These typically present with acute symptoms like throat pain, dysphagia, and odynophagia. Most of these cases are successfully treated on their initial presentation, but if ignored, foreign body like fish bones, owing to their sharp ends can migrate into the neck region. The most frequent site for the foreign body lodging is cricopharynx due to the upper esophageal sphincter. Migration of the sharp foreign bodies is not unusual in this zone due to rigorous peristaltic contractions of the pharyngeal muscles. The contraction forces can even result in migration of the foreign bodies through the wall of hypopharynx. Although the extra luminal migration of the foreign bodies is rare, but once migrated, these can present variably, depending upon the direction of migration. While the majority of foreign bodies can lie asymptotically, a few cases can result in devastating complications such as suppuration in neck, injury to nearby vessels, and mediastinitis. In our case, in spite of a suggestive history, the clinical presentation was not in favor of a foreign body in the neck. However, a comprehensive clinico-radiographic evaluation facilitated in attaining a precise diagnosis. In our case, it was assumed that the foreign body became impacted in right pyriform fossa and migration occurred thereafter. Fortuitously, the fish bone surpassed all the vital structures in the neck region as it advanced toward the skin and lay dormant in the same region for a period of 6 months till the initial presentation.

The migration of foreign bodies usually happens in the neck region due to the movement of esophagus during deglutination and active and passive neck movements. Routine X-ray investigation of neck and thorax forms the initial modality to diagnose foreign bodies in the upper aerodigestive tract. Metallic foreign bodies like coins and well mineralized foreign bodies can be easily observed on the X-ray films. Partially mineralized foreign bodies require further investigations like X-ray lateral view neck and can be visualized as distortion of anatomy which delivers an imperative indication toward the probability of a lodged foreign body. However, extremely thin, linear or partially mineralized migrated foreign bodies can be left undetected on X-ray examination. In such situations, CT scan remains the radiological investigation of choice to identify the exact location of migrated foreign bodies and their relationship to the vital structures of the neck. CT scans also contribute significantly in diagnosis of hypo mineralized foreign bodies like fish bones, which can be easily be overlooked in the plain X-ray investigation. In the present case, the plain X-ray did not reveal any foreign body structure, nevertheless, the CT scan images helped to locate the foreign body lodged in left side strap muscles with surrounding fluid collection under the skin of the neck.

The most accepted mode of treatment for the migrated foreign bodies is surgical removal under general anesthesia. A majority of migrated foreign bodies require external approach for their removal. The choice of their treatment modality is largely determined by the location of the foreign bodies and their relationship with the vital structures.
Few cases in the literature have depicted foreign bodies which had resulted in significant injury to the nearby vital structures such as internal jugular vein, facial artery, or common carotid artery. Pre-operative evaluation of the foreign body with CT scan with contrast is of immense benefit and aids in deciding the apt surgical approach. The surgeons should be prepared to endure intra operative complications like bleeding from the major vessels. In our case, the foreign body was secured in the strap muscles, pointing outward toward the skin and, fortunately escaped any injury to the vital structures of the neck. In our case, the foreign body was removed surgically by the transcervical approach without any undue complications.

CONCLUSION

Our case report encompasses a rare presentation of a long-standing foreign body which had migrated in the neck and projected under the skin without instigating any harm to the adjacent vital structures. Partially mineralized, extremely small, and sharp foreign bodies like fish bones have a propensity to migrate extra luminaly. Such minor objects are commonly overlooked in the routine radiographic examinations like X-ray and require a thorough clinico-radiographic evaluation. The migration of sharp foreign objects can endanger the neighboring vital structures and cause significant morbidity and mortality. Imaging techniques like CT scan with contrast can be of utmost significance in the early diagnosis, precise localization and prompt removal of such foreign bodies.

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