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RETRO PHARYNGEAL ABSCESS SECONDARY TO A SHARP PENETRATING FOREIGN BODY

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INTRODUCTION

The retropharyngeal space is located immediately posterior to the nasopharynx, oropharynx, hypopharynx, larynx and trachea. The buccopharyngeal fascia, which surrounds the pharynx, forms the anterior border. Bounded posteriorly by the alar fascia, the retropharyngeal space is bounded laterally by the carotid sheaths and the parapharyngeal spaces. It extends superiorly to the base of skull and inferiorly to the mediastinum at the level of the tracheal bifurcation [1].

A retropharyngeal abscess is an infection in one of the deep neck spaces. An abscess in this location is an immediate life threatening emergency, with potential for airway compromise and other catastrophic complications.

CASE REPORT

A 35 year old serving soldier was referred from C.M.H Muzaffarabad with four days history of accidental ingestion of a piece of chicken bone while taking meals. Endoscopy was attempted at C.M.H Muzaffarabad but the foreign body could not be retrieved. At presentation the patient had severe pain the neck along with absolute dysphagia.

At CMH Rawalpindi the patient was kept N.P.O along with parenteral nutrition and I/V antibiotics. Apart from base line investigations, which showed raised TLC, the patient was advised X-ray neck A/P, lateral views and CT scan neck. Both the radiological investigations revealed a radio opaque foreign body lodged in the retropharyngeal space, with obvious widening of the prevertebral soft tissue shadow.

After the case was thoroughly discussed, it was decided to remove the foreign body by external approach, and to drain the possible retropharyngeal abscess. The patient was counseled about the nature of the disease and consent for general anesthesia was obtained. All necessary operative investigations and G.A fitness was obtained.

Per operatively a cervical incision was made approximately at the level between the upper border of the thyroid cartilage and the hyoid bone on the right side of the neck (which was the level of the foreign body based upon radiological evidence). Skin flaps were raised along with the platysma and the sternocledomastoid muscle was exposed. The steno mastoid muscle was retracted; the middle thyroid vein and superior thyroid vessels were identified and ligated. The prevertebral fascia was exposed by blunt finger dissection during which a gush of frank pus came out. The pus was completely drained and sent for culture and sensitivity. With the help of finger palpation the foreign body was looked for and removed carefully keeping the great vessels away from its sharp edge (Figure). The neck was closed in layers with a drain in place. Nasogastric tube was passed and the patient was shifted to post op I.T.C. The patient made an uneventful recovery in the subsequent post operative days.

On the 8th post operative day skin stitches were removed and after undergoing a gastrograffin study the N.G tube was also removed. The patient was put on oral diet and discharged on the 10th post operative day.

DISCUSSION

Penetrating trauma is involved prominently in retropharyngeal space infection. Accidental lacerations are not uncommon in children who run and fall down after they have placed an object (e.g, toy, stick, lollipop, tooth brush) in their mouths. Foreign bodies e.g fish bones have also been implicated in penetrating trauma in the retropharyngeal space. Itrogenic causes of inoculation to this space include instrumentation with laryngoscopy, endotracheal intubation, and feeding tube placement. Acute retropharyngeal abscesses in adults due to naso oropharyngeal infection is rare because lymph nodes in the retropharyngeal space disappear, usually after the age of 4-5 years. In adults it is because of some penetrating injury or foreign body piercing the posterior pharyngeal wall. Predisposing factors are debility, exanthemata, decreased immunity and HIV [1]. Deep neck infections are less common in the antibiotic era, but when they do occur they remain serious infections [2].

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The organisms found in the pus in acute cases are, staphylococcus aureus, streptococcus viridians, klebsiella pneumonia, Ecoli and Haemophilus species [3]. Sore throat with symptoms out of proportion to oropharyngeal findings should prompt a search for pathologies other than simple pharyngotonsillitis. Other typical symptoms of a retropharyngeal abscess include high fever, dysphagia, hot potato voice, and less commonly, dyspnea and sepsis [4]. The uncommon occurrence of acute retropharyngeal abscess in adults due to a retained foreign body has been reported by Rauf et. al. in which a large piece of wood was impacted in the retropharyngeal space and presented as retropharyngeal and bilateral parapharyngeal abscesses [5].

For those patients requiring surgical drainage, the approach will be dictated by the location of the abscess and its relation to other structures in the neck. First one must decide if intra oral drainage is an option, or if external drainage is required. External drainage of deep neck abscesses can be accomplished in several ways. Elizabeth et al. describes using either the anterior or posterior approach to the retropharyngeal, prevertebral and visceral vascular spaces [6]. The anterior approach involves an incision paralleling the anterior border of the sternocledomastoid, dissection along the anterior border of the muscle, lateral retraction of the carotid sheath, medial retraction of the larynx, trachea and exposure of the abscess cavity at the hypopharynx. The posterior approach utilizes an incision behind the sternocledomastoid, medial and anterior retraction of the muscle and carotid sheath thus opening into the abscess cavity from behind the great vessels. This approach potentially places at risk the sympathetic chain and phrenic nerve [6].

In a retrospective study by Ashok et al. retropharyngeal abscesses accounted for eight out of 11 foreign body associated complications. Fish bones were the cause in six cases and chicken bone and a pen refill in one case each. An abscess was already present at the time of the initial procedure in six cases and developed in two cases after successful removal of the foreign body. A high level of suspicion for a retropharyngeal abscess should be maintained in cases with pharyngeal perforation and in patients with immunedeficiency [7].

CONCLUSION

Fig : Foreign Body with Sharp Edge Removed at the Time of Operative

Retropharyngeal abscess secondary to a penetrating foreign body is although rare about needs a high index of suspicion. It is a potentially fatal condition and delay in treatment can lead to life threatening complications and death.

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