

Picture Story

Hypopharyngeal foreign body impaction presenting late as acute onset torticollis due to retropharyngeal abscess formation in a child

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Sri Lanka Journal of Child Health, 2023; 52(4): 496-498

DOI: <https://doi.org/10.4038/sljch.v52i4.10534>

(Key words: Hypopharyngeal foreign body, Retropharyngeal abscess, Torticollis)

Introduction

Foreign bodies in the aerodigestive tract are common in children¹. Oesophageal and hypopharyngeal foreign bodies are usually found intra-luminally¹. The clinical presentations of impacted hypopharyngeal foreign bodies are variable; however, it is usually suggested by a suspicious history². Here we report a 7-year-old Sri Lankan boy with an impacted hypopharyngeal foreign body, without an obvious history, presenting late as acute onset torticollis due to retropharyngeal abscess formation.

Case report

A 7-year-old boy, diagnosed with left-sided hemiplegic cerebral palsy and global developmental delay, presented with fever, cough, and food refusal for four days and abnormal neck posturing for one-day duration. He had high-grade intermittent fever without chills and rigors. He did not complain of headache, photophobia or drowsiness. Further questioning revealed that he had developed a choking episode followed by bouts of cough while drinking a soup made with vegetables and beef immediately before the onset of this illness.

Physical examination revealed an ill-looking, febrile and irritable child with drooling of saliva. He had right-sided torticollis, tender neck swelling and

restricted lateral neck movements (Figure 1). There was no associated stridor or barking cough. The child was tachypnoeic with a respiratory rate of 55 per minute and had intercostal recessions. Auscultation of the lungs revealed bilateral equal air entry with vesicular breathing. There were no added sounds. Throat examination was not attempted due to pain.



Figure 1: Child with right-sided torticollis

Due to the drooling of saliva, torticollis and restricted neck movements, local pathology in the neck was clinically suspected. Lateral neck x-ray showed a high-density material in the hypopharynx, indicating an impacted foreign body with soft tissue thickening (Figure 2). In addition, there was an associated retropharyngeal abscess with surrounding soft tissue inflammation. Full blood count revealed neutrophil leucocytosis (white cell count- $13 \times 10^9/L$, neutrophils-69%) and the C-reactive protein was 29mg/L.

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(Received on 09 March, 2023: Accepted after revision on 21 April 2023)

The authors declare that there are no conflicts of interest

Personal funding was used for the project.

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Figure 2: Lateral neck x-ray showing foreign body impaction in hypopharynx (white arrow) and retropharyngeal abscess (black arrow)

The child was referred to the otolaryngology team for examination under anaesthesia. Rigid oesophagoscopy revealed an impacted beef bone measuring 2cm x 1cm in the hypopharynx (Figure 3). The beef bone was removed, and the associated retropharyngeal abscess spontaneously ruptured (Figure 4).



Figure 3: Impacted beef bone (black arrow) visualized by oesophagoscopy



Figure 4: Retrieved beef bone

The child was kept nil by mouth for 12 hours, and feeding was gradually commenced via a 14G nasogastric tube. An oral liquid diet was commenced on the second postoperative day, and solid feeds started on the third postoperative day. Intravenous ceftriaxone and metronidazole were continued for five days. The child showed significant clinical improvement. The repeat lateral neck x-ray on the fifth postoperative day was normal, confirming the complete removal of the foreign body and resolution of the retropharyngeal abscess (Figure 5).



Figure 5: Lateral neck x-ray on 5th postoperative day showing complete removal of foreign body and resolution of retropharyngeal abscess

Discussion

Foreign bodies in the hypopharynx are not easily discovered and they may lead to disastrous consequences such as airway compromise, suffocation and even death³. Diagnosis can be difficult and delayed, especially in young children, as the history is not forthcoming, and symptoms are atypical⁴. Hypopharyngeal perforation is a rare injury that needs early recognition due to its serious complications. Delayed diagnosis can result in significant morbidity and potential mortality⁵.

Hypopharyngeal foreign bodies, when associated with a retropharyngeal abscess, can increase the risk of mortality due to airway obstruction, jugular venous thrombosis, carotid artery erosion and rupture leading to mediastinitis, aspiration pneumonia, epidural abscess and septic shock^{3,6}. They should be promptly removed before disastrous complications develop. Our patient underwent timely removal of the foreign body and drainage of the retropharyngeal abscess avoiding fatal complications. The high degree of clinical suspicion led to ordering of an appropriate x-ray to arrive promptly at the diagnosis. This case highlights the importance of clinical vigilance, timely investigations and rigid endoscopic examination in

children with suspected hypopharyngeal foreign bodies⁴.

Acknowledgements

We thank the staff of the otolaryngology and radiology departments of the Colombo North Teaching Hospital for their advice and assistance in managing the patient.

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