

# Tracheal Foreign Body: An Unusual History And Presentation

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## Abstract

We presented a rare case of foreign body aspiration following road traffic accident mimicking laryngotracheal trauma.

## INTRODUCTION

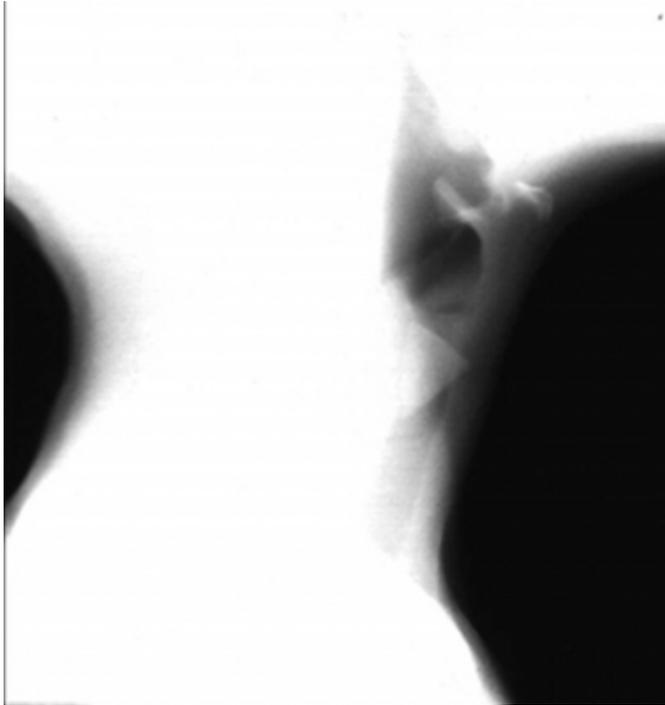
Inhalation of foreign body by no means is an uncommon occurrence. The type of foreign bodies is almost endless and their enumeration is unnecessary. Foreign body can only enter the air passage if there is some interference with the normal reflex action, such as sudden inspiration while eating, playing, fright or laughter. These accidents are more common in children as compared to adults. Foreign aspiration is a severe and potentially fatal occurrence in childhood. In children probably the protective reflex is not so effective as in adults. Small metallic foreign bodies are known to have been aspirated into the tracheobronchial tree without the knowledge of the patient and if it is nonobstructive, it may not produce symptoms for months. With the passage of time, the nonobstructive foreign body sets up a local reaction such as edema of surrounding tissue and granulation tissue formation, producing symptoms like respiratory distress, wheeze and a mistaken diagnosis of asthma and bronchitis is made. The foreign body can be held up at the epiglottis, at the glottis by the vocal cords or in subglottis. However these may be prevented from entering the lower passage by the immediate cough. Foreign body remains in trachea when the size of foreign body is greater than the tracheal lumen or in cases of sharp foreign body which gets impacted in trachea. When the foreign body is first inhaled there is a bout of cough or dyspnoea. The absence of a cough strongly rules out the possibility of foreign body having entered the air passage. Here we are reporting a case with a part of porcelain inhaled as foreign body with unusual history and presentation mimicking laryngotracheal stenosis.

## CASE REPORT

A seven year old boy presented to out patient services of ENT department, PGIMER, Chandigarh, India with an alleged history of road side accident 10 days back. He was hit by a motor cycle while crossing the road. There was history of transient loss of consciousness and injury to the lower lip for which patient was given first aid treatment in a near by private hospital. According to parents the child developed progressive hoarseness of voice initially and subsequently was not able to phonate after the accident. Patient developed noisy breathing immediately following accident and respiratory distress 7 days after accident. The child was in stridor on presentation. Examination revealed an average built child with biphasic stridor but no cyanosis. Indirect laryngoscopic examination could not be done. Laryngeal cartilaginous frame was normal on examination except tenderness over thyroid cartilage. On auscultation, there was harsh vesicular breathing with equal air entry on both side of chest. So a clinical diagnosis of vocal cord hematoma or subglottic stenosis was made. X-ray of soft tissue of neck and chest were done immediately in emergency. X-ray soft tissue of neck revealed a triangular radio opaque foreign in subglottic region (Figure-1).

**Figure 1**

Figure 1: X-ray soft tissue neck, lateral view showing foreign body in subglottis region.



Chest X-ray was normal. Endoscopy confirmed the diagnosis. The foreign body was in subglottic region with the upper end of foreign body was in between the posterior parts of vocal folds and was removed. Check endoscopy revealed congestion of cords and edema and minimal granulation tissue in subglottic area. There was narrowing of subglottis seen on post removal soft tissue neck X-ray. The post operative period was uneventful.

**DISCUSSION**

The incidence of foreign body in food passage is more common than in the air passage<sup>4</sup>. The position of foreign body depends upon its relative size. There can be foreign body reaction depending upon the size and the nature of foreign body. In our case inhalation of foreign body occurred during road traffic accident and there was no history of cough or choking sensation. Neither the child nor the parents were aware of the foreign body. The presenting symptoms were hoarseness of voice initially followed by respiratory distress 7 days after accident with a normal laryngeal cartilaginous frame work .X-ray soft tissue neck revealed the foreign body in subglottic region thus radiology plays a great role in the detection of the metallic foreign body. According to Shah et al<sup>5</sup>, it is necessary to screen and X-ray every patient who is admitted with a history of having swallowed a foreign body or patient who suddenly develops

cough and dysnoea. Possibility of foreign body must be kept in mind where a is brought with symptoms such as respiratory distress or loss of voice with a history of loss of consciousness. In our case the foreign body was triangular in shape, approximately 17 x 13 x 2 mm in dimensions. (Figure2).

**Figure 2**

Figure 2: Foreign body after removal.



It was in coronal plane and the upper end was lying in between the cords preventing apposition of cords thus producing loss of voice. The largest dimension of foreign body was greater than the subglottic diameter. So it got lodged in subglottis. As it was a thin foreign body, it did not produce any respiratory distress initially. By passage of time there occurred reaction to foreign body producing edema and granulation tissue in subglottis area which was seen during bronchoscopy, there by compromising the air way and producing respiratory distress and stridor.

**CONCLUSION**

Possibility of foreign body aspiration should also be considered in cases of road traffic accidents with normal laryngeal frame work on examination presenting with aphonia and respiratory distress so that treatment can be initiated at the earliest to prevent any complications.

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