Sir,

A rare case of unusual sharp metallic foreign body of bronchus, which was a piece of sharpener blade, is reported. Accidental inhalation of both organic and nonorganic foreign bodies continues to be a cause of childhood morbidity and mortality.\[1\] Sharp foreign bodies can cause erosion, perforation of the tracheal and bronchial wall or can get embedded in it. Foreign bodies perforating the trachea ordinarily results in surgical emphysema or respiratory distress. Tracheoesophageal fistula have been reported.\[2\]

A 3-year-old male child was referred to our institute with a history suggestive of sharpener blade aspiration for 3 h. There was no history of vomiting, respiratory distress, or any bleeding from mouth. On examination, his vitals were stable, and he was breathing normally with no respiratory distress or cyanosis. On basis of history and physical examination, foreign body aspiration was suspected, and a chest X-ray postero-anterior view was done, which revealed a radio-opaque foreign body in the region of the left main bronchus [Figure 1].

Rigid bronchoscopy revealed a piece of sharpener blade in the left bronchus that was impacted but not completely blocking the distal airways. The surgeon was able to grasp the FB with forceps and bronchoscope; forceps and foreign body were removed together. It was rusted sharpener blade piece measuring the size of 1.1 cm × 0.6 cm × 0.1 cm [Figure 2]. After removal of the foreign body, bronchoscope was reintroduced looking for any airway mucosal injury and revealed no abnormality. The postoperative period was uneventful, and a chest X-ray was done postbronchoscopy to exclude the presence of pneumothorax or mediastinal emphysema.

The diagnosis and treatment of children with a foreign body in the respiratory tract requires a high degree of suspicion. A negative history is present in about 15% of cases of foreign body aspiration; hence, a good clinical suspicion, physical examination, and chest X-ray could make it possible to diagnose the case.\[1\]

A foreign body aspirated into the air passage can lodge in the larynx, trachea, or bronchi, of which 80–90% are found in the bronchi because their size and configuration. Larger objects become impacted in the larynx or trachea, at times causing complete obstruction, an emergency. In adults, bronchial foreign bodies tend to get lodged in the right main bronchus because of the angulation, but the angles made by the main stem bronchi with the trachea are identical until the age 15 years; therefore, foreign bodies are found on either side with equal frequency in patients in this age group.\[3\]

The main symptoms associated with aspiration are suffocation, cough, excessive sputum production, cyanosis, or difficulty in breathing. The management of inhaled foreign body depends on the site of impaction of a foreign body. Laryngeal and subglottic foreign bodies need urgent intervention in the form of tracheostomy or urgent bronchoscopy, whereas foreign bodies in the right or left main bronchus cause comparatively less airway problem.\[4\]

The organic foreign bodies have a tendency to readily immobilize causing severe mucosal inflammation and edema of the tracheobronchial mucosa resulting in total occlusion of the airway. On the other hand, inorganic foreign bodies are generally inert, and these may migrate even when they have been aspirated a long time previously.\[5\]

As most inhaled foreign bodies are radiolucent, clues as to their location on radiographs depend on the secondary signs of complete or partial airway obstruction. The plain chest X-ray reveals radio-opaque foreign bodies in 23.56% of all patients with foreign bodies’ inhalation, and many chest radiographs may have completely negative findings, especially within the first 24 h following aspiration.

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

How to cite this article: Kathuria B, Arora V, Wadhera R, Singh S. Sharpener blade: An unusual tracheobronchial sharp foreign body in a child. Lung India 2017;34:102-3.
The ideal means of foreign bodies’ removal are rigid bronchoscopy under general anesthesia with the removal rate of 97.2% of patients with trachea-bronchial foreign bodies.\(^5\)

For multiple pointed objects or objects with sharp cutting edges, a large diameter rigid bronchoscope can be used to protect the mucosa. No such protection is possible with the flexible endoscope, and there is a significant risk of bronchial and tracheal laceration and perforation during extraction of such a foreign body with a flexible endoscope.

A chest radiograph should be obtained following bronchoscopy to exclude the presence of pneumothorax or mediastinal emphysema.

Foreign body in pediatric airway is a potentially life-threatening situation, which requires emergency endoscopic removal. Sharp and pointed foreign bodies in bronchus can result in potentially fatal complications. Furthermore, the sharp foreign body may migrate from one main bronchus to other and produce respiratory obstruction of the previously normally ventilating lung.

**Financial support and sponsorship**

Nil.

**Conflicts of interest**

There are no conflicts of interest.

**Bhushan Kathuria, Viresh Arora, Raman Wadhera, Surender Singh**

Department of Otolaryngology, Head and Neck Surgery, Post Graduate Institute of Medical Sciences, Rohtak, Haryana, India

E-mail: dr_viresh_arora@hotmail.com

**REFERENCES**

1. Zerella JT, Dimler M, McGill LC, Pippus KJ. Foreign body aspiration in children: Value of radiography and complications of bronchoscopy. J Pediatr Surg 1998;33:1651-4.
2. Saki N, Nikakhlagh S, Rahim F, Abshirini H. Foreign body aspirations in infancy: A 20-year experience. Int J Med Sci 2009;6:322-8.
3. Kim IG, Brummitt WM, Humphry A, Siomra SW, Wallace WB. Foreign body in the airway: A review of 202 cases. Laryngoscope 1973;83:347-54.
4. Dunn GR, Wardrop P, Lo S, Cowan DL. Management of suspected foreign body aspiration in children. Clin Otolaryngol Allied Sci 2004;29:286.
5. Rafanan AL, Mehta AC. Adult airway foreign body removal. What’s new? Clin Chest Med 2001;22:319-30.