METALLIC FOREIGN BODY IN LEFT MAIN BRONCHUS

(A Case Report)

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ABSTRACT

A child with accidental inhalation of a metallic foreign body into left main bronchus is reported. The foreign body was removed by rigid bronchoscopy. The problems in management are discussed and current literature reviewed.

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KEY WORDS : Foreign body; Bronchoscopy.

Introduction

Inhalation of foreign bodies into the tracheo-bronchial tree is common. It is related to the inherent tendency of children to put object into their mouth to determine their texture and taste, and to chew on when teething. Endoscopic removal of such foreign bodies in children presents special difficulties. We report a child in whom a metallic foreign body was removed five days after inhalation.

CASE REPORT

A five year old boy presented with history of choking followed by paroxysmal coughing while playing. Later, symptoms subsided but he continued to have mild breathlessness on exertion and expiratory wheeze. The child was examined in a civil hospital and a radio-opaque foreign body was detected in left main bronchus (Fig 1). Rigid bronchoscopy and esophagoscopy was done but foreign body was not visualised, and a chest scan was advised.

On examination at our centre, 5 days after inhalation, the child was afebrile. Respiratory rate was 30 per minute. He was acyanotic and air entry was reduced on left side. Radiographically, the foreign body was found to have been displaced distally (Fig 2).

The child was induced with thiopentone sodium (5 mg/kg) and maintained with ether inhalational agent breathing spontaneously. Rigid bronchoscopy (4 mm size) was performed and anaesthesia was maintained with oxygen, nitrous oxide, and ether and assisted ventilation through the side arm of the bronchoscope. The bronchoscope was withdrawn into the trachea intermittently to provide adequate ventilation on the healthy

side. A metallic screw 2 cm in length was removed by alligator forceps. Radiological confirmation was done (Fig 3). Post-operative recovery was uneventful.

Fig. 1 Chest radiograph showing radio-opaque foreign body in left main bronchus.

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Fig. 2 Chest radiograph showing foreign body displaced laterally.

Discussion

The maximum incidence of inhalation of foreign bodies occurs between the ages of 1 and 3 years and boys are more commonly affected [1]. Only about 4% of these objects impact the larynx [2]. At least one symptom of the triad of coughing, choking and wheeze was present in 91% of patients [3]. The symptoms subside after the initial paroxysm as the tracheo-bronchial mucosa becomes tolerant and this feature delays diagnosis [1]. This especially occurs with inert, smooth surfaced metallic objects where very little mucosal reaction takes place.

Fig. 3 Post operative chest radiograph.

The degree of difficulty in removal depends on a number of factors like age of the patient, type of foreign body, interval between inhalation and removal, skill of anesthesiologist and equipment available. Jet ventilation is ideal for removal of foreign bodies from bronchus. The efficacy and safety of rigid bronchoscopy supersedes any form of conservative approach using bronchodilators, thoracic percussion, postural drainage and Heimlich manoeuvre [4].

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