

A RARE FOREIGN BODY IN A CHILD 'S BRONCHUS
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Introduction:

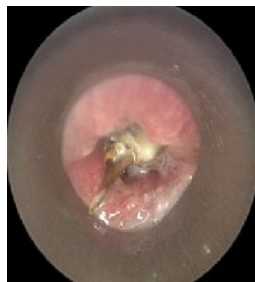
Epidemiology incidence: - FB aspiration is the major cause of accidental deaths among children below ages 1-3 with a male predominance (M: F=2:1).on an average they account for 1500 deaths annually. This is related to the fact that children have a habit of putting things into their mouth. Majority of FB's get lodged in the Rt.main bronchus (70%) and minority in the larynx reason being Rt.bronchus is wider and straighter than the left.

Common types of FB's:

Portion of nut, Balloon, Crayon, wood, Food, paper, Carrot, Needle, Popcorn, Safety pin, Fruits(Seeds), parts of toys, Bone, Plastic, Metal, Stone, Bead, Mucus.

Diagnosis:

- * History
- * Physical examination
- * Radiology



1. History:

Definite history of choking followed by paroxysmal coughing which then subsides later as the trachea – bronchial mucosa becomes tolerant to the FB. Usually a triad of choking, coughing, and wheezing is present in 90% of the FB aspiration cases. A unilateral wheeze should definitely sound the alarm for a FB aspiration and not to be mistaken for Bronchial

asthma. Other symptoms include an unexplained persistent fever; recurrent attacks of lobar pneumonia demand a diagnostic bronchoscopy. Laryngeal FB presents with respiratory distress and pain over root of the neck. Large oesophageal FB usually ends with a large – oesophageal fistula.

2. A. Symptoms and physical findings:

- Cough
- Dyspnea
- Wheezing
- Stridor
- Cyanosis
- Decreased breath sounds
- Tachypnea
- Rhonchi
- Somnolence

B. Clinical findings:

General examination is essential. Respiratory distress leading to cyanosis demands urgent intervention. Cough with mouth breathing, excessive salivation and stridulous cry. Within few hours of aspiration air flow changes occurs in the tracheo bronchial tree resulting in findings –Clicks, flutter, unilateral rhochi or wheeze.

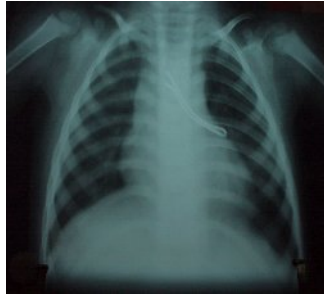
If not intervened within 24 hours pneumonic signs may occur owing to increased mucosal inflammatory changes esp if FB is of vegetable origin. Later changes include atelectasis and rarely abscess of lung occurs. Smooth inert FB's do not cause any reaction.

3. A. Radiology :

- X- ray examination should include all the structures from nasopharynx to Ischial tuberosities.
- AP and lateral views taken with extension of neck.
- AP views in inspiration and expiration.
- A lateral chest X-ray completes the examination.
- Screening may also help.
- CT scan to show a FB not seen with conventional studies.

B. Radiographic findings in patients with airway foreign bodies:

- Air trapping (emphysema).
- Atelectasis.
- Perihilar infiltrates.
- Opaque FB.
- Lobar collapse.
- Normal radiograph



X-Ray Chest showing the radio Opaque FB –Lt Main Bronchus

C. Fluoroscopy:

Usually normal in 53 % of FB patients, Sensitivity: 47%; specificity: 95%; to identify mediastinal shift and paradoxical movement of the diaphragm

CASE PRESENTATION:

This 3 yr old male child presented to the Pediatrician with a recurrent h/o cough and occasional blood stained sputum. O/E: Child afebrile, normal parameters. X-Ray Chest was ordered for and surprisingly a radio opaque foreign body was seen in the left main bronchus. Retrospectively history revealed child was playing with a hairpin sometime earlier.



Rigid Bronchoscopy performed under GA

Child was advised Bronchoscopy under general anesthesia. Using 4mm Rigid Bronchoscope under general anesthesia foreign body was removed using grasping forceps. Examination of the bronchial mucosa revealed no injury. Child was discharged after 24 hrs of observation.



Removal of FB (hair pin)



Retrieved Foreign Body-Hair pin

Summary:

Awareness of the general practitioners to common causes of airway obstruction in children is most vital and if FB suspected there should be no delay in subjecting the child for a rigid bronchoscope.