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UNIQUE FOREIGN BODY CHEST DIAGNOSED INCIDENTALLY

Abstract

Foreign Body (F.B) inhalation is a common problem in children but is an uncommon occurrence in adults. Risk factors of F.B inhalation in adults are advanced age, altered state of consciousness due to drugs intoxication, poor dentition and neurological deficit. Sometime accurate diagnosis of F.B inhalation may be missed even by an experienced clinician either the initial choking episode is not witnessed or the delayed symptoms may mimic other clinical condition like asthma, pneumonia, recurrent upper respiratory tract infection and persistent cough. We present such a unique long standing F.B (tooth) in right main bronchus in an old lady which is diagnosed incidentally and was removed with rigid bronchoscope successfully, although F.B is a rare incidence in adults but it must be kept in mind while dealing the patient with chronic cough.

Key Words: Foreign body, Tracheobronchial tree, Rigid bronchoscopy.

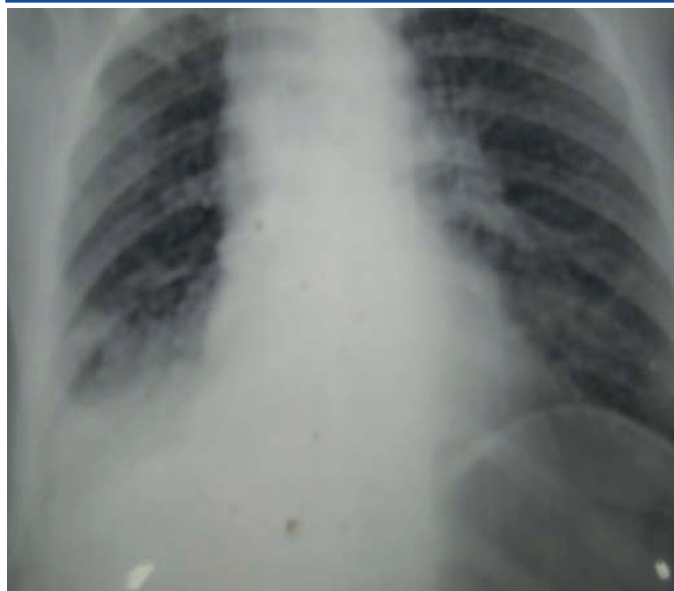
INTRODUCTION:

Foreign Body (F.B) inhalation is a common problem in children but is an uncommon occurrence in adults. Its occurrence in children less than 15 years is about 80 percent. F.B aspiration may give rise to life-threatening emergency if it is enough large causing complete occlusion of the airway¹. Risk factors of F.B inhalation in adults are advanced age, altered state of consciousness due to drugs intoxication, poor dentition and neurological deficit. The major issues involve in F.B aspiration include accurate and timely diagnosis and prompt and safe retrieval of FB. Sometime accurate diagnosis of F.B inhalation may be missed even by an experienced clinician either the initial choking episode is not witnessed or the delayed symptoms may mimic other clinical condition like asthma, pneumonia, recurrent upper respiratory tract infection and persistent cough². F.B aspiration had a wide spectrum of presentation ranging from typical choking to asymptomatic long standing F.B. Occult F.B may remain undetected for months to years that's why a high index of suspicion is necessary for diagnosing trachea-bronchial F.B.³ In majority of cases F.B can be diagnosed clinically; however radiological investigation may help⁴. Bronchoscopy is the gold standard technique for removal of F.B and in some cases open surgical procedure may be adopted for removal of F.B. If F.B are not diagnosed and removed timely, they will result in increased morbidity and mortality⁵.

CASE REPORT:

We present a rare case of F.B inhalation by an old lady of 45 years age. The main complaint of this lady was episodic dry cough lasting for 4 years. She had no definitive history of FB inhalation. She had visited various general practitioners for the same complaint and took various medications advised by doctors. The patient had temporary relief with the use of medication prescribed by general practitioners but no significant improvement. Then she was put on anti tuberculosis therapy by physician. She completed 8 months course of anti tuberculosis therapy but she was not cured. Then the patient consulted pulmonologist for the same complaint. After proper evaluation fiber optic bronchoscopy was performed by pulmonologist and he found that a foreign body looked like tooth was lodged in right main bronchus although the CXR revealed no pathology. Pulmonologist attempted on removal but was difficult and patient was referred to otorhinolaryngologist for removal of F.B with rigid bronchoscope. This patient was admitted into ENT, Head and Neck surgery department. Base line investigations were performed prior to bronchoscopy. Rigid bronchoscopy was performed under general

Fig. 1: CXR of the patient with F.B in right main bronchus.

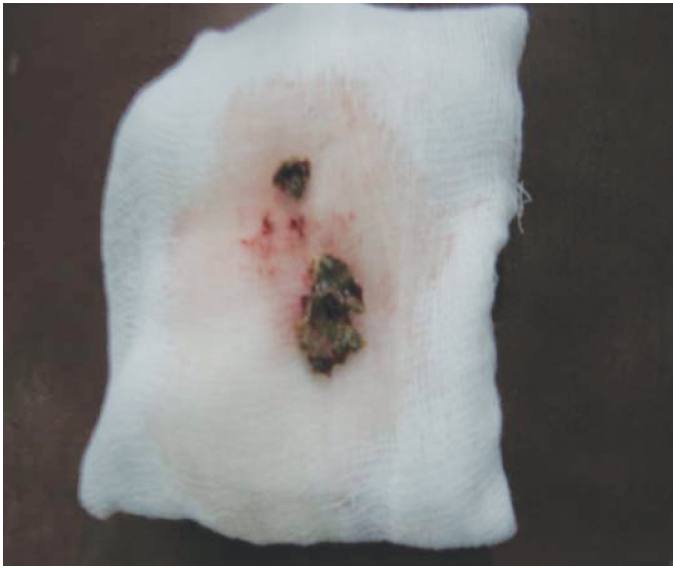


anesthesia and F.B was localized in right main bronchus and removed successfully with uneventful recovery of the patient. Patient was put on injectable antibiotic post operatively. Post operative X-Ray chest was carried out. The F.B was a rusted tooth. The patient was discharged on 5th day.

DISCUSSION:

F.B aspiration is an emergency seen in children with highest incidence of morbidity and mortality. However F.B aspiration by adults is an uncommon incidence especially when there is no typical symptom⁶. Likewise in this case patient age was 45 years old but there was no clear-cut history of F.B aspiration. In adults F.B aspiration may be due to overdose of sedative drugs, unconsciousness or poor dentition. However in this case no such cause was found. This case is also at variance from other studies where F.B aspiration is more common in male population as they are more prone to such incidence. F.B

Fig. 2: F.B removed from right main bronchus.



aspiration has some association with geo-cultural differences⁷. F.Bs could be either organic or inorganic. Organic F.B includes seeds, nuts, vegetables and bones while inorganic F.B includes wood, metallic and plastic items. Peanut is the commonest F.B aspiration universally. In children the triad of wheeze, cough and diminished air entry creates high index of suspicion. F.B can get lodge at any site of the respiratory tract but right side main bronchus is the dominant site for lodgment as it is wider and straight than left side. Similarly in our patient the F.B was found in right main bronchus. Presentation of F.B aspiration in adults has a wide range from completely asymptomatic to the complication of aspiration as compared to children. Unlike those who present with sudden respiratory distress or witnessed by other, F.B aspiration in adults may remained unnoticed for years, or it may give rise to non-specific symptom like chronic cough, haemoptysis and dyspnea⁸. In this case the main presentation of the patient was long standing episodic cough. Most of the time F.B airway can be diagnosed clinically, nonetheless Chest X-ray is usually the first line of investigation but 6 to 80% of radiographs have negative findings. In this case Chest X-ray was not helpful in diagnosing F.B as it was radiolucent. Removal of F.B is an old concept. Louis removed F.B airway via bronchotomy first in 1759 while first endoscopic removal of F.B airway is recorded in 1897 and since then bronchoscopy is the gold standard technique for evaluation of the patient with high index of clinical suspicion of

F.B inhalation⁹. The success rate of fiber optic bronchoscopic retrieval of F.B airway in adults is from 60 to 90%. The procedure is performed under local anesthesia and is associated with risks because the fiber optic forceps had less grasping power of a F.B as compared to rigid bronchoscopy forceps¹⁰. In this case although F.B airway was first diagnosed with fiber optic bronchoscopy but it was retrieved with help of rigid bronchoscopy under general anesthesia. Bronchoscopy may have some complication and in this case there was no complication as the patient recovered from procedure uneventfully and she was discharged on 3rd day.

CONCLUSION:

It is concluded that although F.B is a rare incidence in adults but it must be kept in mind while dealing the patient with chronic cough. Moreover patients should not be subjected to long course of medication without having justified evidence. Rigid bronchoscopy has to be adopted for removal of F.B in airway.

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