

Unusual Presentation of Sharp Metallic Foreign Body in Tracheobronchial Tree

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Abstract:

Background And Objectives: Foreign Body (FB) aspiration is a world wide health problem which can result in life threatening complications. It most commonly occurs among children younger than 5 years of age, yet aspiration of sharp foreign bodies are seen more commonly in growing up children and in adults. The aim of this work is to remove foreign body without any complications.

Material and Methods : This is a retrospective study of sharp metal foreign body which is head pin aspirated accidentally in a child aged 5 years who presented to the Department of ENT, Government General Hospital Guntur.

Results : The type of foreign body is a head pin which is sharp and we tried to remove by rigid bronchoscopy under jet ventilation but couldn't identify the foreign body, hence we removed successfully under general anaesthesia by open method i.e, posterobasal segmentectomy of right lower lobe through thoracotomy.

Conclusion: The head pin is very sharp so rigid bronchoscopy is a suitable choice for diagnosis and treatment and should only be performed by senior expert bronchoscopist. But in this case it is not possible to remove it by rigid bronchoscopy, because it is not in the bronchus, but pierced into lung tissue. So we tried to remove it by thoracotomy and posterobasal segmentectomy. As the foreign body is sharp and while removal complications can occur, so we must take check x ray chest and neck to confirm its position.

I. Introduction

Foreign body (FB) is defined as an endogenous or exogenous substance which is abnormally found in an anatomical site. Foreign body aspiration is a world wide health problem which can result in life threatening complications. They can occur among children less than 5 years of age, and sharp foreign bodies are also seen in children, adolescents and adults. Generally organic materials such as nuts and seeds are commonly aspirated. Imaging studies such as plain x rays are very useful and are diagnostic for sharp foreign bodies as most of them are metallic and radio-opaque. Rigid bronchoscopy is the standard procedure for removal, but flexible bronchoscopy is used recently for removal of foreign bodies in children and adults especially for removal of foreign bodies which have entered into peripheral bronchi.

II. Material And Methods

A male child of 5 years age was holding head pin in his mouth, somebody pushed him from back, then the pin was inhaled accidentally. Following the incident the patient developed dry cough immediately and after that intermittently. No history of fever, choking or breathlessness.

On examination

Vital signs stable
No cyanosis
No stridor
Lungs clear on auscultation.

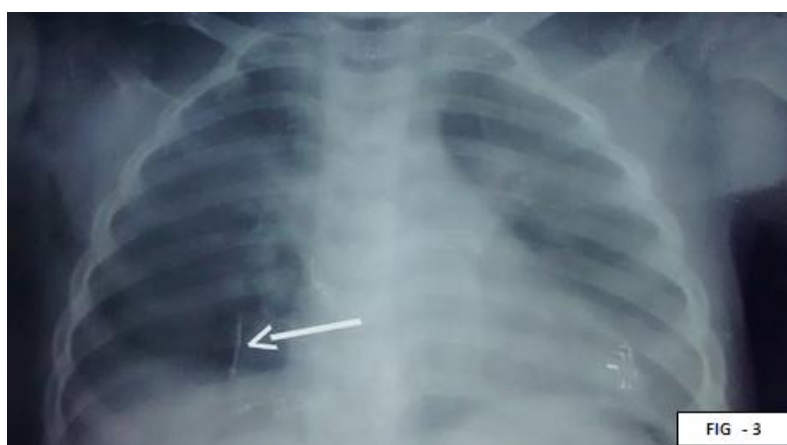
X-ray Chest PA view, taken at the time of admission (Fig – 1) shows the head pin is in the left segmental bronchi in the lower lobe.



As the patient is relatively asymptomatic, after taking the consent from parents, the case was posted for elective bronchoscopy and foreign body removal. But by the evening of the same day the patient developed severe irritating cough and breathlessness. Then we have taken X-ray Chest PA view (Fig – 2), which showed that the foreign body is lying in the trachea.



So we have consulted Anesthetist regarding emergency removal of the foreign body. The anesthetist opined that it is too risky to do the procedure at that time and advised oxygen inhalation, steroids and advised to post the case on the next day morning. Before shifting the patient to operation theatre we have taken again one more x-ray Chest PA view (3rd film Fig 3) at 8 : 30 AM which showed the head pin lying in subsegmental bronchus in the right lower lobe.



Under general anesthesia, rigid bronchoscopy was done but no foreign body was seen up to segmental bronchi on either side. Hence the Thoracic surgeon was consulted while the patient was still under general anesthesia. The Thoracic surgeon and ENT surgeon combinedly decided to remove the foreign body by open method i.e posterobasal segmentectomy of right lower lobe through thoracotomy. Posterolateral thoracotomy was done and tried to identify the foreign body by palpating the lower lobe but couldn't feel it. However both the surgeons decided to go ahead to do posterobasal segmentectomy of right lower lobe. Thorough palpation of removed segment didn't revealed the foreign body, hence we have taken X-ray of the specimen, which showed the foreign body clearly. Then with the help of the Pathologist the specimen was cut open and isolated the foreign body. Chest wound was closed after keeping intercostal drainage tube (ICD).

Post operative period was uneventful. The patient was discharged after one week after removing ICD. The patient was reviewed after 15 days in OPD, was asymptomatic and x-ray chest PA view taken was normal.

III. Conclusion

Small sharp objects like needles will not be stationary and moving from one place to another due to irritating cough. The surgeon should always take X-ray of the chest and neck PA view just before giving general anesthesia, so as not to miss its location on the operation table. Aspiration of foreign bodies can be prevented through education and health care programmers in schools and media.

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