CASE REPORT

AN UNUSUAL FOREIGN BODY IN TRACHEA

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We report a very unusual case of foreign body (FB) in the tracheo-bronchial tract of a male child, who presented to us in the Emergency Department at our tertiary care centre with the complaint of FB in throat, cough bouts and choking sensation with pain and difficulty in breathing for whom an emergency rigid endoscopy was carried out after appropriate investigations.

Keywords: Foreign body, tracheo-bronchial tract, management, unusual

INTRODUCTION

Inhalation of foreign body by no means is an uncommon occurrence. The type of foreign bodies is almost endless and their enumeration is unnecessary.[1] Gustav Killian in 1987 was the first person to remove a foreign body from the lower air passages with a rigid bronchoscope. During the first part of the twentieth century Chevalier Jackson perfected endoscopic techniques and made perioral endoscopy an important part of medical science. By 1936 the mortality from an aspirated foreign body had decreased from 24% to 2%. Foreign body can only enter the air passage if there is some interference with the normal reflex action, such as sudden inspiration while eating, playing, fright or laughter . In children probably the protective reflex is not as effective as in adults[2] therefore these accidents being more common in children as compared to adults. When the foreign body is first inhaled there is a bout of cough or dyspnoea. The absence of a cough strongly rules out the possibility of foreign body having entered the air passage[1]. One study[3] has classified the thoracic foreign bodies in three types according to the aetiology: Type-I being the ingested/aspirated, Type-II due to trauma/ accident and Type-III iatrogenic.

Foreign body ingestions or insertions are seen in four broad categories of patients: (a) children, (b) mentally handicapped or mentally retarded persons, (c) adults with unusual sexual behaviour, and (d) 'normal' adults or children with predisposing factors or injurious situational problems.[4]

CASE REPORT

Here we are reporting a case of a young boy who accidentally aspirated a bone chip/fragment on the occasion of *Eid-ul-Adha* when a sacrifice of an animal was being offered and meat was prepared of the flesh by a butcher that cause a bone to splinter and a fragment came off flying and got lodged in the trachea of this boy who was standing nearby!

The boy was then brought to the emergency department of our tertiary care centre with the complaints of FB impaction in the throat, bout of violent cough and choking and dyspnoea, although no episode of cyanosis or child turning blue was mentioned. Because of the positive history and the presentation an emergency endoscopy was planned, child admitted, emergency x-ray (AP & Lat views) were taken (Figure-1) and an informed and written consent was obtained for the procedure. Endosocpy was carried out under general anaesthesia and fragment of bone was removed from the boy's trachea (Figur-2). The child recovered fine, postoperatively.

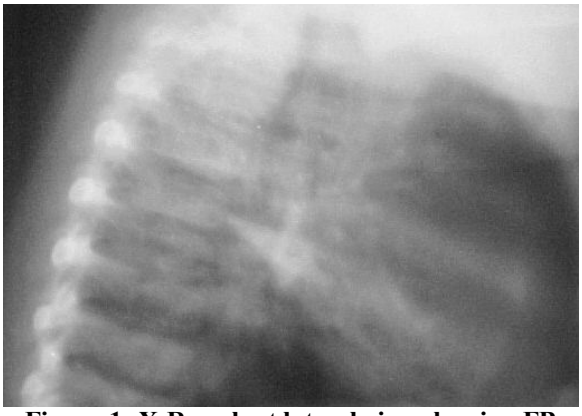

Figure-1: X-Ray chest lateral view showing FB

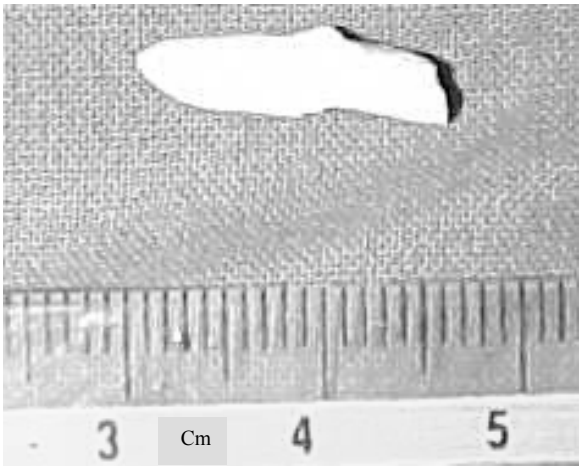

Figure-2: Bone chip removed

DISCUSSION

The incidence of foreign body in food passage is more common than in the air passage.[5] The position of foreign body depends upon its relative size. There can be a foreign body reaction depending upon the size and the nature of foreign body. For the airway foreign bodies the most frequent symptom is the so-called 'penetration syndrome' defined as the sudden onset of choking and intractable cough, with or without vomiting; other presenting symptoms that occur in isolation or in association are cough, fever, breathlessness and wheezing. In our case the boy had this syndromic presentation! Aspirated foreign bodies generally lodge in the right bronchial tree, especially the bronchus intermedius in adults, whereas in children a central location predominates.[6,7] Indeed, aspirated foreign bodies lodged in the trachea are probably more prone to be symptomatic than those located in more peripheral airways.[6]

For the diagnosis the history and clinical examination is important and the most common radiological investigation ordered is perhaps a chest X-Ray and/or lateral view of neck. The use of CT to aid the diagnosis of tracheo-bronchial foreign bodies has not been a great advantage.[8] In one study, the sensitivity of cough and choking was 82% and 80%; of a chest radiograph was 66% with a specificity of 51%; that of auscultation was 80% with specificity of 72%.[9] The combination of history, signs and radiological abnormalities is more useful than any one separately and a high index of suspicion is essential.[8]

The choice of using a flexible or a rigid endoscope is controversial with rigid variety more in use and favoured for the tracheo-bronchial foreign bodies.

CONCLUSION

Of the tracheo-bronchial foreign bodies, only 12% will impact in the larynx with most passing through the cords into the tracheo-bronchial tree. Therefore to master the skill for the endoscopy it is must that teaching on animal models and/or manikins be made mandatory for the trainees so to cope with this most difficult airway emergency in particularly vulnerable patient population in an efficient and safe way.

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