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A rare case of foreign body bronchus:- A case report

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Abstract

Foreign body (FB) ingestion is a very common problem in children which needed to be treated immediately otherwise it will lead to complications, it can present with various symptoms. In this paper we are going to describe and discuss a case of an accidental ingestion of foreign body (tamarind seed) which partially occluding the lumen of distal trachea just above the bifurcation.

Keywords: Foreign body bronchus, trachea

Introduction

Ingestion of foreign body by no means is an uncommon occurrence. various types of foreign bodies can be ingested by children thus their enumeration is really unnecessary. FB can enter in the airway if there is some interference with normal reflex action like laughter, fright, playing or eating. These actions are common in children. foreign body can be vegetative or non vegetative there are more chances of impaction with vegetative FB because it swells up.]

Case report: 4 year old male presented with difficulty in breathing for 8 days to MGM medical college and M.Y hospital, INDORE (MADHYA PRADESH). Patient had history of accidental ingestion of foreign body (? Tamarind Seed) 12 days back. Patient had history of cough & cold for 8 days, unable to feed for 2-3 days, chest and abdominal retraction associated with respiratory movements, bilateral crackles present which is associated with added sounds. CBC, neck and chest X-ray And CT scan of Chest (Virtual Bronchoscopy) advised. plain CT of chest & virtual bronchoscopy showed a well defined oval hyper dense foreign body measuring approx CC1.6 x AP 1.2 x RL 0.8 cm is seen partially occluding the lumen of trachea just before its bifurcation. The upper respiratory tract is well aerated. Bilateral lung fields are well aerated without evidence of any collapse / consolidation.



Fig 1.1: CT scan of chest showing oval hyper dense foreign body partially occluding the lumen of trachea just before its bifurcation.

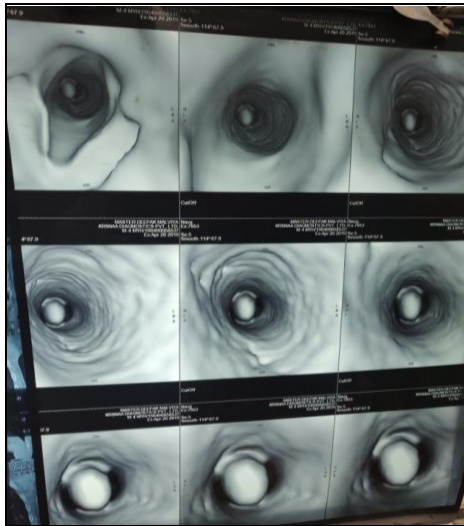


Fig 1.2: virtual bronchoscopy showing oval hyper dense foreign body partially occluding the lumen of trachea just before its bifurcation.

Patient premedicated with glycopyrrolate 10mcg/kg and midazolam 0.01mg/kg & preoxygenated using JRC 0.5 lit bag and induced with ketamine 2mg/kg, sevoflourane 1% MAC, fentanyl 2mcg/kg, succinylcholine 20 mg given and IPPV done. Patient handover to the surgeon, rigid bronchoscopy performed and patient was oxygenated through the oxygen port of the bronchoscope using JRC 0.5lit bag as foreign body was impacted first attempt of removing it was unsuccessful and oxygen saturation started falling patient given to anesthesiologist, patient ventilated through JRC using 0.5 lit bag propofol 1mg/kg, Atracurium 0.25mg/kg given and IPPV done after achieving oxygen saturation 100% patient handover to surgeon. Second try was also failed and oxygen saturation started falling again patient again ventilated using JRC 0.5 lit bag this time patient ventilated again propofol, ketamine, repeated and sevoflourane started patient ventilated properly & handover even third try was unsuccessful & saturation again started falling patient gain ventilated and atracurium 0.1mg/kg repeated surgeon took decision for tracheostomy as foreign body was so much impacted. Tracheostomy performed by surgeons, airway secured and rigid bronchoscopy again started patient ventilated through tracheostomy. In fourth try foreign body removed it came out in two pieces. Patient ventilated through tracheostomy until the effect of muscle relaxant wean off. After spontaneous efforts reversal done with neostigmine 0.05mg/kg and glycopyrrolate. Patient shifted on t-piece. postoperatively patient was maintaining 100% oxygen saturation. After two days tracheostomy has been removed. Patient discharged on post-operative day 6

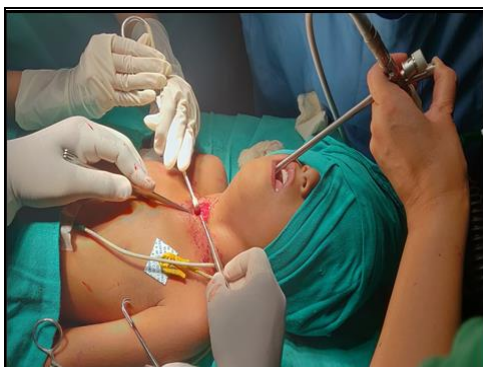


Fig 1.3: Patient undergoing tracheostomy.

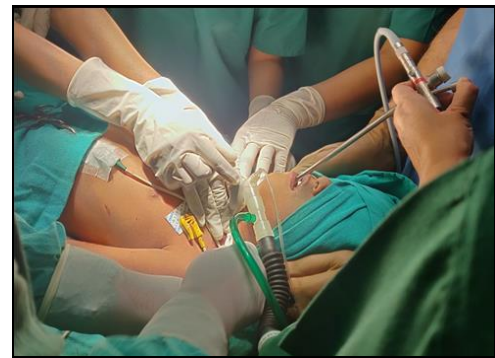


Fig 1.4: image showing that tracheostomy done and patient ventilated through tracheostomy and rigid bronchoscopy had been performed.

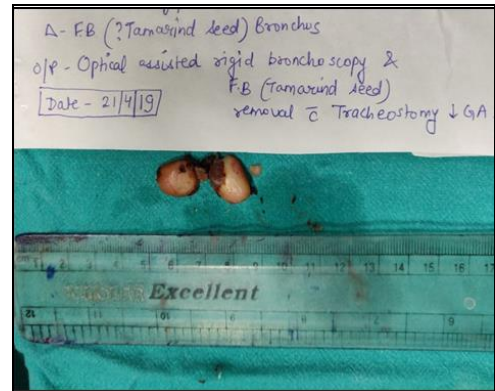


Fig 1.5: image showing foreign body bronchus which was removed by optical assisted rigid bronchoscopy (F.B. – Tamarind seed) removal with tracheostomy under GA.

Discussion

Tracheobronchial foreign bodies especially in children and infants are present with respiratory obstruction and it can lead to death. Majority of foreign bodies come to rest in right main bronchus because of it being wider than left bronchus but in young children there is a more equal distribution between the bronchi of two sides. The prognosis depends on various factors like age of the patient, presentation, surgical and anaesthetic skills. Different types of foreign bodies are encountered in bronchus including fish bones, pen-caps, whistles, vegetative foreign bodies, metallic pieces and seeds of different fruits. These foreign bodies should be removed as early as possible otherwise it can even lead to death. Management approach should be systematic. Preoperative radiological assessment followed by rapid intervention by skilled bronchoscopists usually result in favourable outcome. Seed of different fruits as foreign bodies are quite common in children. These foreign bodies can get impacted thus lead to difficulties during removal of foreign bodies. From Early hospitalization and intervention life of the patient can be saved.

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