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Case Report

A surprise cause of recurrent pneumonia in an infant

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ABSTRACT

Foreign body (FB) ingestion is a common pediatric emergency seen among children between 6 months to 5 years. Most of the ingested FBs are accidentally taken and are passed in stools uneventfully, however they may lead to complications in some children. We present an infant with recurrent pneumonia attributed to gastroesophageal reflux due to a large Tik-Tak hair pin accidentally discovered on X-ray abdomen. The child symptomatically improved following endoscopic removal of the FB with complete resolution of respiratory symptoms and gastrointestinal reflux disease. Impacted FBs in fundus of stomach can irritate the mucosal lining, resulting in inflammation or increased acid secretions which may eventually lead to reflux of stomach contents into oesophagus (Gastro-oesophageal reflux). Aspiration of these reflux particles can cause recurrent aspiration pneumonia. After endoscopic removal of FB infant improved symptomatically and had no complains on follow up, which further proved that his symptoms were due to this large impacted FB. Thus, awareness among parents regarding ingested FBs and their complications is extremely important.

Keywords: Foreign body, Aspiration pneumonia, Tik-tak pin

INTRODUCTION

Foreign body (FB) ingestion is a common pediatric emergency seen among children between 6 months to 5 years.[1] Most of the ingested FBs are accidentally taken and are passed in stools uneventfully, however they may lead to complications in some children. We present a case report of an infant with recurrent pneumonia attributed to gastroesophageal reflux disease (GERD) due to a large Tik-Tak hair pin accidentally discovered on X-ray abdomen. The child symptomatically improved following endoscopic removal of the FB with complete resolution of respiratory symptoms and GERD within five days.

CASE REPORT

A 6-month-old infant presented in paediatric OPD with symptoms of recurrent cough and fever. On examination, his pulse rate was 136/min, respiratory rate was 53/min and had Spo2 of 87-88% on room air. He had bilateral crepitations on chest auscultation. Rest of the systemic examination was not remarkable. X-ray chest showed bilateral infiltrates. The child was started on nasal prongs oxygen and i/v antibiotics.

Further, there was history of recurrent episodes of vomiting and regurgitation of feeds. A repeat X-ray chest with X-ray abdomen was done, which showed an impacted foreign body (FB), a tik-tak hair clip in fundal region of the stomach (Figure 1). An upper gastrointestinal endoscopy was done and a large tik-tak clip measuring 4.9 cm was retrieved from the fundus (Figure 2 and 3). The child symptomatically improved following this with complete resolution of respiratory symptoms and gastroesophageal reflux disease (GERD). On day 6th of hospitalization, the child was discharged.

There was no recurrence of symptoms and child is healthy and gaining weight adequately on follow-up.

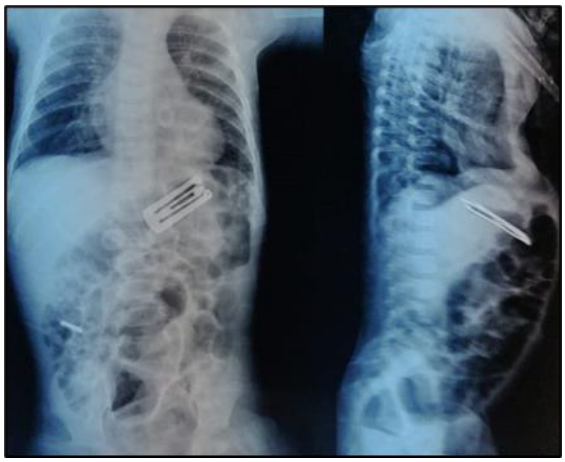

Figure 1: X-ray chest and abdomen showing impacted foreign body (tik-tak hair clip) in abdomen.

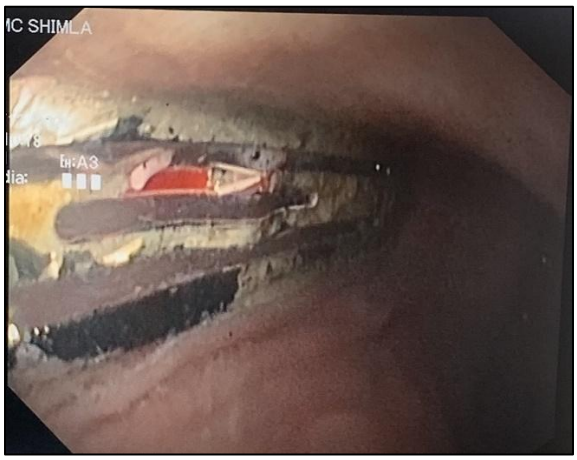

Figure 2: During upper gastrointestinal endoscopy of the child, showing a large tik-tak clip in stomach.

Figure 3: Endoscopically retrieved tik-tak clip from stomach.

DISCUSSION

FB ingestion is one of the common emergencies seen in paediatric department. Maximum number of cases fall between age group of six month to seven years.[1] The most common objects ingested in such patients include coins, toys, pins, button batteries, magnets, household items etc. Among these, coins are the most common FBs ingested by children.[2,3] These FBs can lodge anywhere in the gastrointestinal tract. Oesophagus is one of the narrow parts of gastrointestinal tract, and hence is vulnerable for FB impaction.[4]

These are likely to get impacted in children with preexisting oesophageal abnormalities.[5] The common sites of FB impaction include upper, middle and lower oesophagus, pylorus, ileocecal valve and rectosigmoid colon.[6] At times, in infants, young children and children with special needs, these lodged FBs may go unnoticed and come to light when complications occur. The complications may include gut perforation (common with sharp/large, objects/button batteries), pneumothorax, pneumomediastinum, mucosal erosion, aortic aneurysm, pressure necrosis, aspiration pneumonia.[7,8]

Our child presented with recurrent pneumonia occurring due to repeated GERD elicited by a large impacted foreign body in stomach. Although GERD is a known cause of aspiration pneumonia in infants, it being initiated by a large foreign body a tik-tak hair clip measuring 4.9 cm has not been reported previously in literature. This FB was very large for a small child and had remained unnoticed for a long time.

Such a large FB has also not been reported previously in literature in a six-month-old infant. The infant had recurrent episodes of cough and fever for which he received multiple courses of oral antibiotics. He was admitted with respiratory symptoms; however, FB impaction remain undiagnosed as only X-ray chest was taken every time. This was diagnosed only after an X-ray abdomen was taken.

CONCLUSION

Impacted FBs in fundus of stomach can irritate the mucosal lining, resulting in inflammation or increased acid secretions which may eventually lead to reflux of stomach contents into oesophagus (Gastro-oesophageal reflux). Aspiration of these reflux particles can cause recurrent aspiration pneumonia. After endoscopic removal of FB infant improved symptomatically and had no complains on follow up, which further proved that his symptoms were due to this large impacted FB. Thus, awareness among parents regarding ingested FBs and their complications is extremely important.

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