FISH BONE AS A CAUSE OF SEALED INTESTINAL PERFORATION, A RARE PRESENTATION

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ABSTRACT

Foreign body (FB) ingestion is frequently reported topic in pediatric literature. Spontaneous passage of FB through the gastrointestinal tract is a norm and the complication rate is very low. Nonspecific presentation and lack of obvious history are the main culprit for delayed diagnosis of these conditions. We also came across a patient with sealed intestinal perforation due to fish bone. This patient presented to us with a one week history of generalised pain abdomen, bilious vomiting, high grade fever, abdominal distension and constipation. There was no history of any foreign body ingestion at that time. On examination tenderness was more in the left hypochondrium. Plain radiographs of the abdomen and CT failed to detect any foreign body. However, ultrasound and CT scan of the abdomen showed some mass lesion with a suspicion of intussusceptions. Abdominal exploration and careful dissection of a mass lesion in the left upper quadrant revealed sealed intestinal perforation and a fish bone lying outside the intestinal lumen. Postoperative patient recovered well and discharge on home medication.

INTRODUCTION

Foreign body ingestion is common in pediatric population with a reported spontaneous passage rate of 80 to 90%. Children age 3 months to 6 years is the most commonly affected population. Less than 1% of the foreign body in gastrointestinal tract lead to perforation and peritonitis. Terminal ileum is the most common site of intestinal perforation due to FB. Detailed history, physical examination and CT abdomen are key steps toward diagnosis of complications caused by foreign body.

Fish bone ingestion is less common in pediatric population as compare to adults. Acute abdominal pain due to fish bone ingestion is one of the rare presentations in a surgical emergency room. Unnoticed ingestion of fish bone by children with abdominal pain as a presenting symptom a diagnostic challenge. We report a case of sealed small bowel perforation caused by fish bone, which was recovered from the peritoneal cavity.

CASE PRESENTATION

A five year old female child presented to ER with generalized pain abdomen, abdominal distension, bilious vomiting, constipation and a high grade fever for the last 7 days. There was no history of any trauma to the abdomen. On physical examination patient was febrile with temperature of 101 F. There was generalized tenderness and guarding all over the abdomen. Rectum was empty on digital rectal examination. Her hemoglobin level at presentation was 10 g/dl and total leucocyte count was 22000 with neutrophil predominance. Platelets count was within normal range. Urinalysis was normal. ESR was 12. Abdominal ultrasound showed intussusception, as the age was atypical and history was not conclusive initially; so CT abdomen was performed which also reported intussusception. At that time no foreign body was reported on CT scan, neither history of any foreign body swallowing was present. We explored the patient and noted the following operative findings.

Jumbled mass in left hypochondrium consisting of distal ileum, Omentum and small amount of pus in the lesion area.

Omentum was grossly inflamed.

Mesenteric lymph nodes enlarged.

A foreign body measuring about 5 cm retrieved from inside the lesion, outside the intestine.
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Rest of the gut was normal.

Adhesions were released, foreign body retrieved. Whole gut was examined for any perforation but except few discolored areas on ileum inside the lesion area, no perforation was found. After surgery Reevaluating patient history and CT scan, a linear foreign body of same length was identified in left hypochondrium (Fig 1). To make sure that the same foreign body caused the sealed perforation and mass formation, x-rays of that fish bone was taken and that confirmed the diagnosis (Fig 2). Patient was put on intravenous antibiotic. She was kept nil by mouth for 48 hours and allowed orally on 3rd POD. Postoperative patient recovered well and discharged on 5th POD.

Some important factors related to patients were aged under six years, history of previous surgery and mentally handicapped, which can pose a high risk for foreign body ingestion and complications. Sharpness and length of the ingested object are key features of foreign body, renowned for causing complication such as perforation, abscess formation and fistula. As in the current case sharp fish bone was the cause of gut perforation and complications.

Accidental ingestion of FB which are not noticed in children and later on presentation as acute abdomen, poses a diagnostic dilemma. Lack of history is the main hurdle in diagnosis. Imaging plays an important role in diagnosis of FB and CT abdomen is on top in the list diagnostic investigation for ingested FB. Plain radiograph of the abdomen, although reported as first line radiologic investigation in acute abdomen, but has limited diagnostic value for foreign body ingestion. As in our case fish bone ingestion was unnoticed and presented in emergency as a case acute abdomen. Preoperative CT and Ultrasound abdomen, fail to pick the presence of fish bones and reported the diagnosis of intussusception. Postoperative re-reporting was done after the finding of fish bone in the peritoneal cavity and this confirmed the location of fish bone.

Presentation of patient in an emergency with complication having suspicion of FB ingestion usually requires Patient with presentation in emergency as acute abdomen requires surgical exploration to diagnose and treatment accordingly. A perforation in the intestinal usually requires peritoneal wash and primary repair. In our case fish bone was recovered from outside the intestinal lumen and a mass lesion was formed by omentum enveloping the sealed intestinal perforation and fish bone.

Foreign body ingestion like fish bone are usually accidental and unnoticed in children, this may lead to varied presentation in the emergency department.
Current scenario gives emphasis on the fact that foreign body ingestion should be considered as one of the reasons of acute abdomen with no obvious history.

REFERENCES

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Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.