General Surgery

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ABSTRACT

In countries where fish is a favoured dietary source of protein, fishbone accounts for the most commonly ingested foreign body that become impacted in the upper gastrointestinal tract and manifest indolently. As fishbones are usually radiolucent and thus usually not detected in X-ray film, however USG and CT highlight about their presence by a linear hyper density within the body tissue. We report two cases of gastric foreign body granuloma caused by an embedded fishbone that presented with upper abdominal pain. Investigations revealed an elevated lesion in the gastric antrum in both the cases, which was suspected to be a sub mucosal gastric tumour. Subsequent surgical resection showed that the lesion was caused by an embedded fishbone granuloma.

KEYWORDS

Fishbone, Foreign Body granuloma, Sub mucosal gastric tumour

INTRODUCTION

Most of ingested foreign bodies pass through the gastrointestinal tract uneventfully within a week. However, symptoms may arise due to occasional obstruction or perforation. Commonly reported foreign bodies include toothpicks, fish bones, and chicken bones. As these foreign bodies are long, narrow and often pointed hence are associated with a high risk of impaction and perforation of the bowel walls (1). Contrary to Western countries where the food bolus impaction is more common (2), fishbone foreign body are most common in Asia (3).

In the acute setting, gastrointestinal perforation secondary to foreign body ingestion may present as odynophagia or abdominal pain. However perforations of the stomach, duodenum and large bowel, due to thicker mucosal walls, may present in a more insidious manner, with the resultant difficulty in establishing a diagnosis.

We present two cases of gastric foreign body granuloma caused by an embedded fishbone through sub mucosa to the serosa and adjacent perigastric region that presented with upper abdominal pain. Investigations revealed an elevated lesion in the gastric antrum, which was suspected to be a sub mucosal gastric tumour. Subsequent surgical resection showed that the lesion was granuloma caused by an ingested and embedded fishbone.

CASE REPORT

CASE 1:-

A 69-year-old male presented with 1-month history of upper abdominal pain and swelling. The pain developed gradually, not radiating, not related to intake of food. The swelling was in upper abdomen, gradually increase in size, non tender. No history of vomiting or sudden weight loss or abdominal trauma. He was a farmer without significant past medical history or a family history of malignancy. Physical examination revealed a, 10cm*10cm intraperitoneal lump over epigastric region, mobile, non tender, smooth surface, well demarcated margin, non reducible, non compressible and not moving with respiration. Routine blood tests showed no abnormalities. USG revealed foreign body with inflammatory mass. Abdominal CT scan showed a linear hyper density with ill defined mass in the perigastric region, extending into abdominal parities.

With a diagnosis of suspected foreign body granuloma the patient underwent exploratory laparotomy. On exploration we found a lump walled off mostly by greater omentum, which on further dissection yielded about 100ml of thick pus with a fish bone of approx size of 4cm at its centre (Fig-1). The deeper end of the fish bone could be dissected up to sub mucosa of the stomach through its wall which was excised in Toto (Fig-2).

Histopathological examination of the resected specimen revealed a foreign body granuloma. Post operative period was uneventful, on 5th post operative period, the patient discharged.

CASE 2:-

A 56 yr female presented with non specific pain abdomen for 2 months. The pain was associated with dyspepsia and flatulence, with occasional episodes of vomiting. Her UGIE revealed an elevated sub mucosal tumour in the stomach with duodenal bulb scarring. Her CECT further showed a foreign body in the perigastric region near the antrum suggestive of a foreign body granuloma (Fig-3). Diagnostic laparoscopy revealed adhesions near the antrum. We further proceeded with an exploratory laparotomy. An upper midline incision was given & the granuloma was located on the antral wall. This was further explored, & the tactile sensation of a foreign body was felt. Finally, a fish bone was extracted from the granuloma with artery forceps and scanty pus drained (Fig-4). An abdominal drain was placed and wound was closed in layers. Postoperative period was uneventful. She was discharged on pod 10.

DISCUSSION

Foreign body ingestion is frequently encountered in emergency departments. Management of this situation depends on the nature of the material ingested. Coins are most common in children (4). Adult true FB diseases are common in individuals who are elderly, have psychiatric conditions, have developmental disabilities, are inebriated, or are prisoners seeking a secondary gain (5). The main causes of food borne FB diseases also vary among geographic regions and cultures. The most common oesophageal FB diseases in adults in the Western world are due to impacted meat or other food (6). However, in the Asian culture or the coastal areas, fish bone is the most common cause (7). Approximately 80% to 90% of ingested FBs are passed spontaneously without complications (8), while 10% to 20% of FBs in the alimentary tract require endoscopic removal and approximately 1% requires surgical intervention (8).

Ingested foreign bodies mostly cause non-specific symptoms. However, when ingestion is accompanied by intra-abdominal perforation, patients may present with abdominal pain, fever, or localized peritonitis. Several studies report complications that include liver abscess, deep neck infection, and thyroid abscess (9).

Abdominal ultrasonography and CT scans are the preferred diagnostic modalities in such cases. An endoscopy may also be helpful if performed before the foreign body migrates and the mucosa starts to heal. The high density lesion in the pre-enhanced and contrast enhanced phases of the abdominal CT in our patient were indicative of foreign body which subsequently confirmed intra operatively. Free pneumoperitoneum is rare as the foreign body is gradually impacted and the perforation is locally covered with fibrin (10).

Our patients did not recall the ingestion of fish prior to the symptoms. Ultrasonography and CT showed linear hyper density with ill defined...
mass, extending into abdominal parities. A solitary foreign body granuloma or pseudotumor like condition can be difficult to diagnose without an appropriate history.

CONCLUSION
Perforation by ingested foreign bodies can present in a variety of ways, including acute, sub acute presentations or those mimicking other conditions especially after weeks or months. A solitary foreign body granuloma or pseudotumor can be difficult to diagnose without the appropriate history. The ingestion of foreign body is often forgotten and not volunteered during history taking. CT scan is highly sensitive and specific in diagnosing and accurately localizing the ingested foreign bodies like fish bone. This case also highlights a fishbone as big as 4cm can get ingested and cause symptoms in an adult without any psychiatric illness and the patient did not recall the ingestion of fish prior to the symptoms. Hence after UGIE picture of intragastric bulge, USG or CT picture suggesting a granuloma with central hyperdense foreign body should raise a high level of clinical suspicion of such lesions even though the history is not suggestive.

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REFERENCES