

The Ileum: An Unusual Site Of Perforation By A Swallowed Artificial Denture

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Abstract

The ileum is an uncommon site of perforation by an ingested foreign body. This is a report of a 30-year-old man who presented with features of generalized peritonitis after ingestion of an artificial denture. On exploration, a stricture with perforation was found in the ileum around 2 feet proximal to the ileocaecal junction, and the denture was impacted at the stricture site. Resection and anastomosis of the affected segment was done. The patient recovered and was discharged on the 10th post-operative day.

INTRODUCTION

Ingestion of foreign body in the alimentary tract is a common occurrence, the majority of objects pass spontaneously through the GI tract without any complications. Prelmans, estimates that 80 to 90% of ingested foreign bodies are passed spontaneously. Intervention in the form of endoscopy or surgery is required in only 10-20% of cases. Karlon and Williams indicate that less than 1% of cases lead to intestinal perforation.

CASE REPORT

A 30-year-old patient presented in the casualty at the Himalayan Institute of Medical Sciences with complaints of abdominal pain, vomiting and distention of the abdomen since 3 days. He was also reporting a history of swallowing an artificial denture 4 days before.

On examination, the patient was found to be dehydrated with a pulse rate of 130/min, a respiratory rate of 24/min, a blood pressure of 90/70mmHg and a temperature of 100°F. The abdomen was distended, tense and tender, bowels sounds were absent and per rectal examination showed fecal staining only.

X-ray of the abdomen showed dilated bowel loops along with multiple air fluid levels without any free gas under the diaphragm or any foreign body.

Due to the clinical impression of obstruction with peritonitis, laparotomy was planned. The abdomen was explored through midline incision. A foreign body impaction was

found at a stricture in the terminal ileum around 2 feet proximal to the ileocecal junction with a 1x1 cm perforation just proximal to it. No other stricture was noted and no significant mesenteric lymphadenopathy was present. Resection of the affected segment and end to end anastomosis was done with 3-0 vicryl.

Postoperatively the patient recovered and was discharged on antitubercular treatment as his histopathology report showed evidence of tuberculosis.

Figure 1

Figure 1: Denture coming out from the perforated ileum



DISCUSSION

Swallowing is the most common way by which foreign materials enter the GI tract. Children, prisoners, psychiatric

patients, elderly people and those with impaired swallowing and poorly fitting dentures are at increased risk. Of all the factors, wearing of dentures is most commonly associated with foreign body ingestion.^{4,5} The presence of dentures eliminates the tactile sensation of the palatal surface and increases the susceptibility to foreign body ingestion.⁶

Objects commonly ingested include coins, toys, pins, nails, dentures etc. The majority of the objects pass spontaneously without any complications. Cricopharynx and ileocecal junction are the most common sites of foreign body impaction. In the series reported by McManous⁷, 73% occurred at the ileocaecal junction. A variety of anatomical obstructions such as esophageal rings or webs, pyloric stenosis, intestinal stricture and congenital malformations may also cause problems with ingested bodies. Only about 1% of foreign body ingested results in intestinal perforation.² Symptoms resulting from foreign body perforation so closely mimic other intra abdominal conditions that diagnosis is seldom made preoperatively because only few patients are aware of the ingestion of foreign body⁷. A wide spectrum of clinical pictures is presented ranging from localized abscess formation, inflammatory mass and obstruction to generalized peritonitis. Our patient had the definite history of denture ingestion and presented with features of both obstruction and generalized peritonitis. The denture has passed the cricopharynx and the pylorus only to

become impacted in the terminal ileum at the site of a stricture. This leads to obstruction and then to perforation of the ileum resulting in generalized peritonitis. The terminal ileum is an uncommon site of perforation due to foreign body ingestion unless there is some anatomical obstruction like stricture or stenosis which can impede the passage of the foreign body through the ileum.

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