



SMALL BOWEL PERFORATION DUE TO AN INGESTED FOREIGN BODY

General Surgery

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ABSTRACT

We report a case of a 50 years old male patient with four days history of pain abdomen, who unknowingly swallowed a foreign body (plastic) while drinking water. A plain X-Ray of abdomen in erect posture revealed gas under diaphragm. Surgical intervention revealed free perforation of the mid ileum caused by the pointed end of plastic. Closure of perforation was done in two layers after removal of foreign body.

KEYWORDS:

Foreign body, small-bowel perforation, surgical exploration.

Introduction:

Ingesting a foreign body is not an uncommon occurrence and most foreign objects pass uninterrupted through the gastro-intestinal tract without any complications⁽¹⁾. Bowel perforation leading to acute abdomen requiring surgical treatment is seen in very few cases^(1,2). Discovery remains intraoperative in most cases⁽¹⁾. Foreign bodies, such as dentures, fishbones, chicken bones, and tooth pricks, have been known to cause perforation of the GI Tract⁽³⁾.

Herein we report a case of elongated sharp foreign body made of plastic of open end of disposable glass, presented as small bowel perforation.

Case report:

A 50 years old male was presented in surgical emergency clinic with abdominal pain, nausea and anorexia. The symptoms had started four days earlier. The patient weight was 65kg, his vital signs were; blood pressure 130/80 mm Hg; pulse rate 90 beats; respiration rate 18/min.; body temperature 38.5°C

Upon physical examination, a distended and diffusely tender abdomen with right lower abdomen rebound was revealed. The patient skin and mucosa was pale.

The emergent laboratory tests revealed the following results : white blood cells (WBC) : 12.6x10⁹/L; S. Creatinine : 0.5 mg/dl; blood sugar : 116 mg ; Na : 139 m mol/L ; K : 4.3 m mol/L. Plain abdominal radiography showed free gas under both domes of diaphragm. Urgent abdominal ultrasonography reported dilated bowel loops and free fluid in the peritoneal cavity.

Laparotomy performed revealed diffuse peritonitis; and further in mid ileum a sharp elongated plastic of open end of disposable plastic glass, about 6 cm long, projecting 1 cm through the perforated ileum (figure 1). Closure of perforation done in two layers after removing foreign body. The post operative period was uneventful and patient was discharged on 6th post operative day.

Comments:

Accidental swallowing of foreign bodies is common in clinical practice. Although, intestinal perforation associated with a swallowed foreign body is quite rare. Most of the foreign bodies are disposed through the stool without causing any problems and only 1.0% (the ones that are long with pointed tips) causes perforation of the intestinal tract, usually at the ileum level⁽³⁾.

Materials that most often cause gastrointestinal system perforation are pointed materials such as fish bones, chicken bones, and toothpicks⁽⁴⁾. In our case also it was a long pointed plastic of open end of disposable plastic glass.

While perforation of the gastrointestinal tract associated with swallowed foreign bodies tend to occur at the angulating regions such as ileocecal and rectosigmoid junctions, it can happen anywhere along the intestinal segments. According to the study conducted by Goh et al,

the most common region, perforation associated with fish bone is the terminal ileum (38.6%)⁽⁵⁾. Coulier et al also reported that perforation is most commonly observed at the angular regions like the distal portion of the ileum, where lumen is narrow (6). In our case perforation was in mid ileum.

Acute abdominal pain can result from perforation associated with a foreign body as seen with our case. Even with a detailed clinical presentation, diagnosis may be difficult and delayed since the ingestion of fish bones or other foreign bodies may not be mentioned in the history of the patient.

Surgery is the treatment of choice to repair any perforation caused by foreign body. Upon development of complications such as abscess, fistula, and ileus, the treatment plan includes observation, medical treatment, or radiological interventions. Surgical treatment of small intestine perforations require surgical repair or segmental resection⁽⁵⁾. Since our case had a small perforation so primary repair was done.

In conclusion our case emphasizes the importance of considering intestinal perforations caused by foreign body ingestion in the differential diagnosis of acute abdomen cases.



Photo 1: Showing pointed foreign body projecting out through gut wall.



Photo 2: Shows plastic foreign body extracted through gut perforation.

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