

Case Report

Toothpick Perforation of Small Intestine in an adult

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Introduction:

Children generally ingest foreign bodies accidentally. In adults it is usually seen in psychiatric patients and prisoners. Ingestion of foreign body in a sane adult is a rare occurrence.

The entire GI tract can be involved. The oropharynx is well innervated, and patients typically can localize oropharyngeal foreign bodies. Scratches or abrasions to the mucosal surface of the oropharynx can create a foreign body sensation. Chronic foreign bodies or perforations can cause infections in surrounding soft tissues of the throat and neck.

The esophagus is a tubular structure approximately 20-25 cm in length. Patients usually can localize foreign bodies in the upper esophagus but localize them poorly in the lower two thirds. The esophagus has 3 areas of narrowing: upper esophageal sphincter (UES), which consists of the cricopharyngeus muscle; crossover of the aorta; and lower esophageal sphincter (LES). These areas are where the majority of esophageal foreign bodies become entrapped. Structural abnormalities of the esophagus, including strictures, webs, diverticula, and malignancies, increase risk of foreign body entrapment, as do motor disturbances such as scleroderma, diffuse esophageal spasm, or achalasia.

Once a foreign body has reached the stomach, it has an 80-90% chance of passage. Objects greater than 6 cm in length may become entrapped by either the pylorus or the duodenal sweep, and objects larger than 2 cm in diameter also may fail to pass the pylorus. When a foreign body has reached the small bowel, the only structural impediment to passage is the ileocecal valve. Rarely, a foreign body may become entrapped in a Meckel diverticulum.

Case report

Mrs. Shoab, 31/F Resident of House # 5, 65-Kot Abdullah Shah Mozang Lahore. She presented in Emergency with Pain right iliac fossa for last 24 hours. It was sudden in onset, mild in intensity, non-radiating to any site, and was associated with mild fever. About 5-6 episodes of vomiting occurred in that period. Vomitus contained partially digested food particles. No diarrhea/constipation. No burning micturation. Her menstrual history was normal. She was taking medication for Rheumatoid Arthritis for last three months. With Alvarado Score of 6 a clinical diagnosis of Acute Appendicitis was made. X-ray Abdomen did not reveal

any abnormality, Blood C/E, Urine C/E, Blood sugar blood urea and serum electrolytes.

After preparation, patient was taken to the theatre. Rutherford Morrison incision was made. Her appendix was difficult to locate but was normal. Strangely a toothpick was seen in the mesentery of appendix and there was a pinpoint perforation in terminal ileum about two inches proximal to ileocaecal junction Fig 1. Margins were fresh and it did not give a look of old perforation. There were adhesions between loops of small intestine, which were also adherent to under surface of liver. After adhesionolysis, margins of perforation were trimmed and it was repaired in two layers (Inner vicryl 2/0 continuous and outer with prolene 4/0 interrupted). Appendicectomy was also performed. After washing abdominal cavity with 0.9 % normal saline wound was closed in layers. Patient was given postoperative antibiotics and an analgesic, kept NPO for 24 hours, and was discharged successfully after 3 days. Later on patient was asked and she admitted taking a burger three days earlier but she did not remember any toothpick.

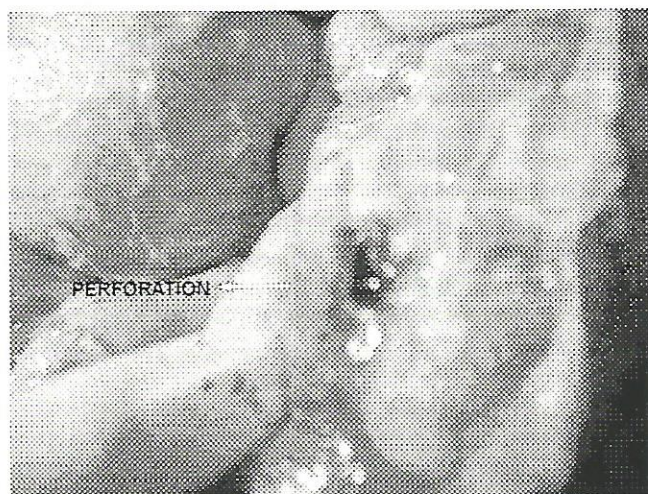


Fig 1 Perforation of inflamed terminal ileum

Discussion:

Search of Medline and Internet yield that commonly ingested foreign bodies are toothpicks, wood splinters, and pencils. The complications of ingested foreign bodies usually occur at the sites of narrowing such as pylorus, the ligament of Treitz, the ileocaecal valve, and the rectosigmoid junction. A retrospective study of Pinero et al. concluded that the most common sites of perforation

were the ileocaecal valve and the rectosigmoid area¹⁷. McManus¹⁸ reported terminal ileum to be one of the more common sites for obstruction and perforation to take place especially by objects with two sharp, pointed ends and about 99% of perforations were due to wood splinters, toothpicks or pencils.

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