

Colonoscopic Removal of Foreign Body: A Case Report

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Abstract

The volunteer ingestion of foreign bodies is a common practice in pediatric patients and adults with psychiatric disorders or under the effects of alcohol and drugs. The most different foreign bodies may be in the any portion of the gastrointestinal path - cecum and colons are rare - and passive for surgical removal, endoscopical or spontaneously. The colonoscopic removal is the safest and cause less morbi-mortality.

Keywords: Colonoscopy; Foreign bodies; Picacism

Introduction

Foreign body ingestion is a common practice in the pediatric population and refers to a gastrointestinal urgency [1]. It is also observed in the adult population, but to a lesser extent, making it more prevalent in patients with associated psychopathologies, such as picacism [2-4], and in patients after the use and effect of psychoactive substances [5]. Ingested intentionally or unintentionally, many of the strange bodies are eliminated spontaneously,

that is about 80-90% voluntarily transit through the gastrointestinal tract [4,6-8]. Therefore, the rest requires medical interference and invasive interventions are necessary for their removal, with 10-20% being removed endoscopically and less than 1% requiring surgical removal [6].

Regarding this clinical condition, it is true to say that it has an unsustainable epidemiology and little described in the literature. In the USA, the incidence of foreign body intake is 13 out of 100,000

individuals [3]. The foreign bodies most commonly ingested by adults are fish thorns and other bone fragments from food [6], in addition to any others without nutritional capacity by patients who have psychopathologies. This is a clinical picture that requires conservative outpatient management, in most cases, because patients are asymptomatic [6]. However, the ingestion of foreign bodies can cause acute obstructive, inflammatory or perforative abdomen [9], culminating in an interventional medical conduct.

The objective of this study is to discuss a case of removal of a foreign body via colonoscopy at the academic hospital of the Pontifical Catholic University of Campinas (PUC-Campinas) and the social and Psychiatry issues that surround it.

Case Report

N.F.P., male, 46 years old, admitted to the PUC-Campinas Hospital after a report of foreign body intake. Patient came with a previous history of cognitive impairment, stinging syndrome and acuphagia (with a previous episode of nail intake and laparotomy after swallowing tap thread), he reported having ingested a 2 cm padlock approximately 12 hours before the first evaluation. He denied nausea, vomiting, abdominal pain or any other complaints. At the initial evaluation, the patient presented median and McBurney stitch scars by previous laparotomy and appendectomy and without changes in the physical examination, with painless, normotensive and normotympanic abdomen.

An acute abdominal radiography was performed, which showed a swallowed object in a gastric chamber topography, apparently in a prepyloric portion (Figure 1), with no signs of pneumoperitoneum or other complications. The entrance laboratory tests were shown to be unchanged. It was decided to keep the patient on a fast, upper digestive endoscopy (UDE) was requested as an attempt to remove the object. He was kept under clinical observation and family members were summoned.

UDE was performed the day after hospitalization, which did not show the swallowed foreign body, diagnosing only moderate enantematic pangastritis with an erosive component in the gastric antrum region. Thus, the patient was kept under clinical observation, with a laxative and prokinetic diet, in order to wait for expulsion from the padlock, performing serial radiographs to monitor its transit through the gastrointestinal tract and identify possible complications secondary to its passage.

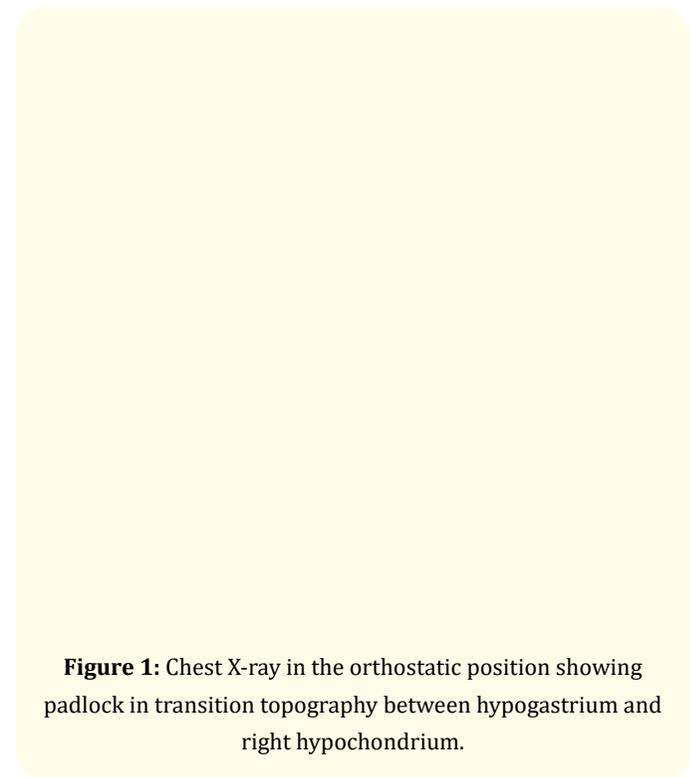


Figure 1: Chest X-ray in the orthostatic position showing padlock in transition topography between hypogastrium and right hypochondrium.

During the first four days of hospitalization, the patient remained asymptomatic and presented habitual elimination of feces, with no evidence of expulsion from the foreign body and no signs of digestive hemorrhage or other complications. Abdominal radiographs, over the days, showed a padlock in topography of the cecum and ascending colon, hour lower (Figure 2), hour higher (Figure 3), without exceeding the hepatic flexure, with small variations in the position of the swallowed object (Figure 4).

It was then decided to start Mannitol and rectal glycerin clister continuously to stimulate elimination, without success during the next two days. After failure of the usual expulsion attempt, it was decided to perform colon preparation and attempt to remove the foreign body by colonoscopy. In the first attempt to capture the padlock by video colonoscopy, the colon was in poor bowel preparation, with dirt, with failure in the removal. Laxative measurements were optimized and, on the eighth day of hospitalization, it was successful to remove the padlock, which was in the cecum, colonoscopically with the aid of tweezers and zebra guide wire, without complications (Figures 5 and 6). The

Figures 2 and 3: Respectively: abdomen Radiographs in the orthostatic position showing a swallowed padlock in the cecum and ascending colon.

Figure 4: Abdomen Radiography in an orthostatic position showing a padlock present in the ascending colon with change of position.

chiatry team, which reiterated the diagnoses of intellectual deficit, allophagia and guided only psychiatric follow-up in a Basic Health Unit (BHU). The patient was discharged on the ninth day of hospitalization with guidance, alarm signals and referral to the BHU.

Figures 5 and 6: Padlock allocated in colon, visualized in colonoscopy.

Discussion

More common among pediatric than adult patients [1], foreign body intake occurs due to some factors, such as a previous history of psychopathologies - sting syndrome or picacism. It is a psychiatric condition, according to the Mental Health Diagnosis in its 5th edition (MHD-5) [10], in which the patient ingests non-nutritive substances inappropriate for its development [11]. It is a disorder of unknown etiology, but it is possible to say that it develops from sociocultural, behavioral and psychological factors [12].

The diagnosis of the patient in the present study was based on the clinical history and the request for imaging tests, which is in accordance with other published studies, which also suggest the performance of digital rectal examination in some cases [5]. The literature shows that clinical observation should be made of asymptomatic patients who ingest foreign bodies with a diameter between 2-2.5 cm and a length of 5-6 cm, in addition to instructing them on signs of intestinal perforation or obstruction and observing evacuation [6]. In the absence or not of symptoms, serial radiographs of the neck, chest and abdomen are sufficient to evaluate the progression of the foreign body, in order to decide its form of extraction [6].

patient progressed well after the procedure, with good acceptance of diet, with no signs of complication. It was evaluated by the Psy-

The extraction of ingested foreign bodies can be done by video endoscopy or surgical technique. However, endoscopic removal ensures more acceptable rates of morbidity and mortality [4,7], as well as the choice made by the team that led the patient in question. Colonoscopy, the technique used, is a therapy that has been constantly improved, in addition to being a safe, cheap and affordable option in most of the country [13] and should be considered as an initial method in the removal of foreign bodies [9] depending on their location in the gastrointestinal tract. In addition, ingested objects visualized on radiography are significantly more likely to be visualized in endoscopic techniques [1].

In this sense, the preparation of the patient for endoscopic technique is necessary. The first colonoscopy performed was described in 1966 by Overholt and Pollard [14] and the good visualization of the gastrointestinal tract is of fundamental importance for the correct diagnosis of colorectal infections [14]. The indications for colonoscopy are bleeding [13,14], change in bowel habits, inflammatory bowel disease, colitis, abdominal pain [14] and, in addition to these, removal of foreign bodies. The most common finding in colonoscopies are polyps [13,14].

Although most foreign bodies spontaneously pass through the gastrointestinal tract [4,6-8], some can cause perforations, also producing acute symptoms of peritonitis [15] and this condition is more prone in patients with a history of inflammatory bowel disease [9]. In cases of perforation, the literature indicates emergency surgical intervention [6], while endoscopic intervention as a treatative and curative measure [15], that is, palliative.

Cases of obstruction and even perforation of the gastrointestinal tract occur due to its physiological narrowing, such as pylorus, duodenum and ileocecal valve. Thus, the presence of an ingested foreign body present in or after the cecum, as in the case described, is, according to the literature, rare. It is the narrowing's themselves that prevent the arrival of the ingested object - padlock - in the distal portion of the digestive tract [9].

Although the approach to removing the foreign body via colonoscopy was efficient and effective, the holistic approach to the patient is necessary as well as treatment of his underlying psychopathology in order to avoid new cases.

Conclusion

The intake of foreign bodies is of great prominence because, in this case report the patient is an adult. The clinical history and findings in the image exams were fundamental to the diagnosis and resulted in a colonoscopic approach to the removal of the foreign body. It is evident, therefore, the need of multidisciplinary intervention, with the support of Internal Medicine multidisciplinary team, Urgency and Emergency, Psychiatry and Digestive Endoscopy.

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