



## Case Report

# Areca nut ingestion–An unusual cause of presentation of chronic abdominal pain

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### ARTICLE INFO

#### Article history:

Received 29-12-2022

Accepted 07-01-2023

Available online 23-01-2023

#### Keywords:

Areca nut

Intestinal obstruction

Phytobezoar

Radiopaque abdominal foreign body

GIFBs

### ABSTRACT

A 42-year-old female patient, presented with recurrent abdominal pain, over 5 years. She had undergone abdominal hysterectomy 12 years ago, suggesting possible band obstruction. X-rays revealed a densely radio-opaque shadow, rounded in outline, with a relatively less opaque central portion. CT abdomen located it intra-luminally in the ileum, without significant evidence of obstruction. Laparotomy revealed an intact areca nut with a thick rim of calcification, proximal to an ileal stricture.

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## 1. Introduction

The range of bezoars is wide, varying from the common to the bizarre. Bezoars cause obstruction depending on size and consistency, and obviously impact at sites of anatomical or pathological narrowing in the bowel. Areca nut (*Areca catechu* /supari) is commonly consumed by the Indian population in association with tobacco or betel leaf (*Piper betle* /paan); usually, it is cut into small pieces, but accidental ingestion of a whole nut is possible.<sup>1</sup>

## 2. Case Report

A 42-year-old female patient came with a complaint of recurrent nonspecific abdominal pain for 5 years, accompanying a sensation of something moving in the abdomen; 4-5 days per episode. Additionally, she had some mild urinary symptoms. She had taken medication for pulmonary tuberculosis 20 years ago and had abdominal hysterectomy 12 years ago. Though both events suggested underlying causes for intestinal obstruction. None of the

episodes progressed to frank obstruction. Abdominal and per rectal examination revealed no abnormality.

While laboratory tests were within normal limits, IVU X-ray (done to exclude Urinary Tract etiology) showed a rounded calcified foreign body, with a relatively lucent centre, in the pelvic region (Figure 1). CECT of abdomen revealed a hyper-dense foreign body at the ileocecal junction, intra-luminally, suspicious of metallic structure (Figure 2). As the clinical picture did not indicate presence of a large intraluminal object, diagnostic laparoscopy was planned to see if the FB was in the peritoneal cavity.

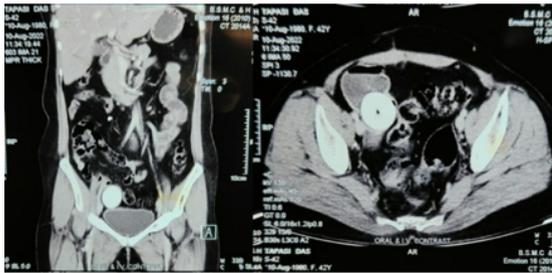
Laparoscopy revealed no intra-peritoneal pathology, except a mild structuring of the ileum around 20 cm from IC junction. Conversion to laparotomy confirmed the mild, old, healed stricture. An ovoid, smooth, solid object was palpable though the gut wall, proximal to the stricture; it was not impacted at the stricture site but could not be milked through it. The foreign body was removed through a longitudinal enterotomy (Figures 3 and 4) which was then repaired transversely to effect a stricturoplasty. Biopsy from the stricture margin revealed no active disease and the patient recovered uneventful

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**Fig. 1:** IVP showing FB.



**Fig. 2:** CECT Whole Abdomen showing the FB



**Fig. 3:** FB extruded through enterotomy at the stricture



**Fig. 4:** The calcified Acrea nut and the FB cut in half, showing Acrea nut. The FB was cut and found to be a whole acrea nut

### 3. Discussion

Foreign body (FB) ingestion, intentional or accidental, is a very uncommon cause of intestinal obstruction. Most accidental FB ingestion occurs between six months to six years of age.<sup>2</sup> The risk factors of FB (inedible objects) ingestion in adult patients are mainly, mental retardation, psychiatric disorders, alcohol intoxication, or swallowing of dentures in old patients. Common food items liable to cause obstruction include meat bolus, shells, pork, chicken and fish bones, dried apricots, etc.<sup>3</sup> However, without any underlying psychiatric conditions, sometimes accidental FB ingestion can occur, like in our patient; cases of an intact Acrea nut causing obstruction, are very rare.

Up to 90% of gastrointestinal foreign bodies (GIFBs) pass spontaneously through the digestive tract without inflicting harm on the patient.<sup>4</sup> Most objects are passed within 4 to 6 days, although some may take as long as 4 weeks.<sup>5</sup> However, the mortality associated with GIFBs that do not pass spontaneously, is as high as 50%. Bowel perforation and obstruction are the most common significant complications, while others, include bleeding, respiratory compromise, fistulation, and abscess formation. In patients symptomatic due to GIFB, the perforation rate has been estimated to be as high as 5% (up to 35% for sharp-pointed objects).<sup>4</sup> Objects that become entrapped in the ileocecal valve tend to be smaller because they have negotiated the pylorus, duodenum and ligament of Treitz.<sup>5</sup> While presenting symptoms vary, rarely, chronic obstruction may occur, as in our patient.<sup>6</sup>

A large lump of indigestible organic matter, swallowed accidentally, may pass through the pharynx, pylorus, and duodenum, but, in the intestine, it swells up due to imbibition, and then may be unable to negotiate the IC junction, thus causing obstruction;<sup>1</sup> our patient had a stricture 20cm proximal to the IC junction, which made the nut act like a ball valve, causing chronic obstructive symptoms. Subsequent calcification enlarged the lump and made it further impassable, leading to this very unusual presentation.

Radiological investigations have limitations, as GIFBs commonly being organic, are often radiolucent, However, many years of calcification on the areca nut, made it easily

detectable radiologically, in this case.

Regarding treatment, only 10-20% GIFBs can be removed endoscopically, and 1-14% requires laparoscopy or laparotomy.<sup>7</sup> The key factors, in deciding management are, the type of object, its physical attributes, location, time since ingestion, comorbidities, presenting symptoms, and evidence of complications, if any.<sup>1</sup> The American Society for Gastrointestinal Endoscopy recommends avoiding contrast radiography before removal of FB or food impaction. Asymptomatic patients (90%) are carefully observed till the FB passes rectally.<sup>2</sup> Endoscopic removal is suggested for esophageal obstruction, and impaction, likely to cause complications viz batteries, sharp/pointed objects with >5cm length or >2cm diameter.<sup>2</sup>

#### 4. Conclusion

FB ingestion in adults leading to chronic intestinal obstruction is very, very rare, especially without any underlying psychosocial disorder. This case demonstrates that, even the very commonly partaken areca nut, chewed in small pieces, by millions of people, causes no problem, yet, if swallowed whole, can lead to a bizarre situation.

#### 5. Source of Funding

None.

#### 6. Conflict of Interest

None.

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**Cite this article:** Mageswaran M., Paul S, Mandal A, Das S, Bhattacharjee PK. Areca nut ingestion—An unusual cause of presentation of chronic abdominal pain. *IP J Surg Allied Sci* 2022;4(4):153-155.