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CASE REPORT

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# Intraluminal bezoar caused obstruction and pancreatitis: A case report

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**Key Clinical Message**

Acute pancreatitis from bezoar-induced obstruction is rare. We present an uncommon case report of a man with manifestations of Rapunzel syndrome with no known history of mental disorders. Surgical removal of the bezoar through gastrostomy and enterotomy in the absence of a psychiatric undertone will undoubtedly prevent a relapse.

**KEYWORDS**

Bezoar, Obstruction, Pancreatitis, Rapunzel syndrome, Trichobezoar

## 1 | INTRODUCTION

Acute pancreatitis is the inflammation of pancreas causing epigastric pain and elevated pancreatic enzymes.[1] Gallstones and chronic abuse of alcohol are the most common known etiologies of pancreatitis.[2] However, a very rare situation of acute pancreatitis has also been reported to develop from bezoar-mediated obstruction. Kohler et al in 2012 reported an uncommon case of Rapunzel syndrome with pancreatitis complications in a male patient, actually the first of its kind in which there is no previous history of a developmental or psychiatric disorder. This follows from advanced form of bezoar which extends beyond pyrolus to reach the small intestine, thereby causing Rapunzel syndrome as well as pancreatitis.[3] Trichobezoar a form of bezoar was first reported in 1779 by Baudamant.[4] Bezoar or trichobezoar develops from strands of hair or indigestible hair-like fiber or material which accumulates over time in the gastric mucosa of the stomach acquiring a large ball-like mesh shape due to the continuous peristalsis. This mesh of hair becomes too large to leave the stomach, but a tail from the bezoar may result in an obstruction of the sphincter of oddi to cause pancreatitis and truncating normal intestinal functions with attendant tirades of problems.[4,5] The root cause of trichobezoar has been attributed to a mental or psychiatric disorder called trichotillomania whereby a person has a compulsive urge to pull his own hair.[6] Trichobezoar is commonly found in females but has exceptionally being reported in male.[7,8] Hence, Rapunzel syndrome has been described as an uncommon type of bezoar with a tail reaching into at least the jejunum of the small intestine.[4]

## 2 | CASE HISTORY

An 85-year-old man with chief complaint of bilious vomiting 2 days prior to admission was presented at the emergency department of Shohada-ye Aashayer hospital, Khorramabad, Iran. He also had constant epigastric pain and additional colic periumbilical pain. The patient had history of defecation and gas passing. He had experienced occasional epigastric pain during the preceding month which was nonresponsive to medical therapies, but no mentioned of associated weight loss. Patient's history also included cerebrovascular accident (CVA), a surgery dating back to 20 years ago due to perforated gastric ulcer and he also suffered from heart failure with ejection fraction of 20%.

At first glance, the patient was obviously ill with evident mild tachycardia (pulse rate: 110) and a normal blood

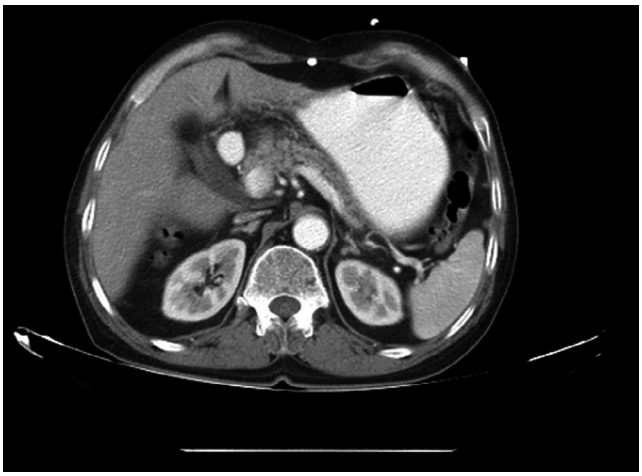

**FIGURE 1** Abdominal CT scan done with IV and oral contrast

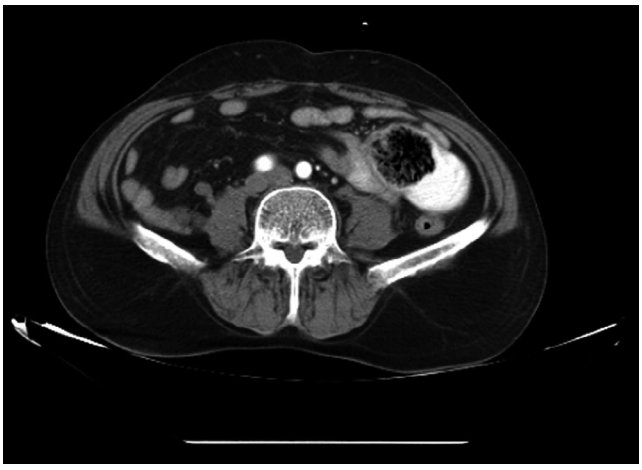

**FIGURE 2** Abdominal CT scan done with IV and oral contrast

pressure (BP: 110/70 mmHg). The patient was not icteric, and head, neck, and chest were normal in physical examination. In abdominal examination, the laparotomy midline scar was seen, no distention was detected, and abdomen was soft with moderate epigastric tenderness. In rectal examination, the anal canal was empty.

After hydration and ruling out cardiac pain origin, in abdominal flat and upright X-ray, no abnormal finding was detected. Leukocytosis of 12000/mm$^3$ with 85% neutrophil was detected. Laboratory data were Hb:14 g/dL and AST:20 U/L ALT:19 U/LALP:168 U/L Amylase:30. BUN:30 mg/dL and creatinine:0.9 mg/dL.

Because of the constant vomiting and abdominal pain, abdominal computed tomography (CT) scan was done with intravenous (IV) and oral contrast that showed pancreatitis and a big bezoar in jejunum (Figures 1 and 2).

Therefore, midline laparotomy was conducted and severe necrotizing pancreatitis was found; consequently, debridement was carried out. A drain was inserted near the pancreas, and exploration of stomach and whole small bowel was done as well as removal of bezoar via enterotomy followed by reparation of the small bowel. After 1 week of conservative management, the patient tolerated enteral diet and was dispatched home in good and stable condition.

## 3 | DISCUSSION

Bezoar is the accumulation of ingested material as a hard mass foreign body in gastrointestinal lumen. It can cause symptoms like vomiting, abdominal pain, early satiety, and anorexia.[9] In most patients, the physical examination is unremarkable and bezoars are found accidently, by abdominal radiography, abdominal ultrasound, or CT scan.[10] Complications often associated with bezoars include gastrointestinal perforation, appendicitis, constipation, peritonitis, and obstruction.[5] In our patient, the bezoar was found in jejunum, and it suggested that irritation be made by progression of trichobezoar along duodenum, causing pancreatitis secondary to obstruction of ampulla of Vater. Patient's symptoms improvement and WBC's decrease to normal level after bezoar surgical removal, suggest the theory. The condition of the patient's mental health was normal, but his pain threshold was increased by aging. The patient referred several days after the onset of pain, and this led to a decrease in amylase level to normal.

The patient once suffered from CVA and had difficulty in communication, and is likely to have pancreatitis due to blockage in the ampulla of Vater through the duodenum.

The patient, with impaired chewing, is more likely to develop bezoar and then to pancreatitis, not pancreatitis, followed by bezoar.

## 4 | CONCLUSION

Bezoar-caused pancreatitis is a rare situation that is because of bezoar pressure effect on pancreatic duct . Recovery from pancreatitis caused by bezoar is smooth following surgical removal of bezoar. Psychiatric assessment through long-term follow-up with patients may help to validate and affirm the absence of mental disorder and prevent recurrence.

### CONFLICT OF INTEREST

The authors have no conflict of interests.

### AUTHORS CONTRIBUTION

SaE: conceptualized and designed the study, drafted the initial manuscript, and reviewed and revised the manuscript. ShE: designed the data collection instruments, collected data, carried out the initial analyses, and reviewed and revised the manuscript. SN: coordinated and supervised data collection,

and critically reviewed the manuscript for important intellectual content. All authors approved the final manuscript as submitted and agree to be accountable for all aspects of the work.

## INFORMED CONSENT

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

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