# Phytobezoar secondary to gastric carcinoma: A Case Report

K Harish, R Harikumar, V Thomas

**Citation**

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**Abstract**

Phytobezoar occurring secondary to gastric carcinoma is very rare. We report a case of 50-year-old male who presented with repeated abdominal pain and vomiting. Barium study revealed a mobile gastric-filling defect classical of bezoar, which was removed endoscopically. This technique involved using a polypectomy snare to mechanically disrupt the bezoar, which was then removed using a large gastric lavage tube. But in view of continued symptoms a repeat endoscopy was done which revealed irregular nodular area in the antrum. Histopathology was suggestive of diffuse type signet-ring gastric cancer.

## INTRODUCTION

Bezoars are collections or concretions of indigestible foreign material that accumulate and coalesce in the gastrointestinal tract, usually the stomach. Gastric bezoars are relatively uncommon with a reported incidence of 0.4%, although the true incidence is unknown [1]. Gastric surgery and diseases that promote dysmotility and stasis are thought to predispose to their formation. Phytobezoar occurring as a complication of gastric carcinoma is very rare [2].

## CASE

A 50-year-old man was evaluated for vomiting and abdominal pain. His abdominal pain was mainly in the epigastric region and has been present intermittently for many years but had worsened three weeks prior to evaluation. He did not complain of anorexia but had lost 7 kg in the last 1 month. He also complained of generalized weakness and easy fatigability. There was no history of previous gastric surgery, diabetes mellitus, hypothyroidism, or medications that could reduce gastric motility. He had undergone endoscopic evaluations for abdominal pain one year back which was reported as normal. The general examination was normal except for pallor. The abdomen was soft with normal bowel sounds and no masses. The laboratory evaluation revealed hemoglobin of 10.5g/dl, total white cell count of 9900 per mm $^3$, platelet count 220,000 per mm $^3$ and ESR of 40 mm at the end of 1 hour. Liver and renal function tests were normal. Barium study revealed a mobile gastric-filling defect classical of bezoar (Fig). Endoscopy showed a oval black mass of amorphous material occupying the antrum and body of the stomach compatible with a phytobezoar along with scattered ulcerations and friability of the gastric mucosa and deformed pylorus. Also noted were mild erythema and friability of the mid and distal esophagus and normal duodenum to the second portion. The bezoars were composed of undigested vegetable material. We decided to attempt endoscopic fragmentation. The bezoar was grasped with a polypectomy snare and broken into smaller fragments which were let out using a Ewald gastric lavage tube. He was treated with proton pump inhibitors and prokinetic agents. Patient improved symptomatically but continued to lose weight. Endoscopy repeated one month later, revealed complete elimination of the phytobezoar but also showed a nodular and narrowed antrum from which multiple biopsies were taken. Histopathology was reported as a signet cell type poorly differentiated gastric adenocarcinoma with infiltration of the lamina propria. The tumor was unresectable at exploratory laparotomy. The patient died 4 months later.

Barium study showing distended stomach with multiple filing defects (bezoar) and narrowing of pylorus.

## DISCUSSION

Gastric bezoars result from the accumulation of ingested foreign material in the form of masses or concretions. Phytobezoars, composed of vegetable matter, are the most common type of bezoar with diospyrobezoar (persimmon fruit) accounting for the majority of cases. Bezoar formation is rare in healthy subjects and is generally an aftermath of

benign pathologies. Most patients with bezoars have a predisposing factor, most commonly altered gastrointestinal anatomy from previous surgery or an abnormal gastric motility [3,4] . Gastroparesis is commonly observed in patients with bezoars who do not have surgically altered gastric anatomy [5] . Patients with comorbid illnesses such as diabetes, patients with end-stage renal disease on dialysis or patients on mechanical ventilation also have increased risk of bezoar formation [6] . Phytobezoar occurring as a complication of gastric carcinoma, as in our case, is very rare. The development of gastric bezoar may be an indication of neoplastic growth sufficient to obstruct the gastric outlet or hypomotility as a consequence of neoplastic involvement of the gastric antrum.

Many patients remain asymptomatic for many years and develop symptoms insidiously. Common complaints include abdominal pain, nausea, vomiting, early satiety, anorexia, and weight loss [4] . Complications include gastric ulceration secondary to pressure necrosis, gastrointestinal bleeding, gastric outlet obstruction and intestinal obstruction. Iron deficiency and megaloblasic have also been reported [7] . A number of nonoperative techniques have been described for the treatment of gastric bezoars: various medications, lavage with esophagogastric tubes, and endoscopic-based techniques although surgery is sometimes required for treatment failures or for acutely toxic presentations. Endoscopic techniques have included directed cellulase and papain injections, directed water jets, drilling, foreign-body forceps extraction, lithotripsy, polypectomy snares, Dormia baskets and use of a neodinium/yttrium-aluminum-garnet laser [8,9] . The technique used in this case of bezoar removal by means of a gastric lavage tube after endoscopic disruption has been reported rarely [10] .

We conclude that bezoar formation is rare in healthy subjects and majority develops in persons with predisposing factors. Most patients have symptoms that are indistinguishable from the underlying gastrointestinal pathology which may be overlooked. Thus a detailed evaluation to exclude possibilities of any underlying disease including malignancy is necessary in patients who develop bezoars without any predisposing factors.

## CORRESPONDENCE TO

Dr. Kareem Harish Department of Gastroenterology Calicut Medical College, Kozhikode 673 008, Kerala. India Phone 0495 2355701 , 0495 2356531 (Extn 248) Email : dr_harishk@yahoo.co.in

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## Author Information

**Kareem Harish, D.M.**
Department of Gastroenterology, Calicut Medical College

**R. Harikumar, D.M.**
Department of Gastroenterology, Calicut Medical College

**Varghese Thomas, D.M., FICP**
Department of Gastroenterology, Calicut Medical College