



# Cellulase With Prokinetics Is an Effective Dissolution Therapy for Gastric Phytobezoars



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## INTRODUCTION

- Gastric phytobezoars are hard concretions of ingested vegetable/food matter in the stomach.
- They can significantly impair mucosal visualization during esophagogastroduodenoscopy (EGD).
- In the absence of gastric outlet obstruction, dissolution therapy is recommended as a first step whilst evaluating for underlying causes.
- Different dissolution therapies for bezoar have been described.
- Cellulase, although first described in 1980's has not been systematically examined and whether a combination therapy of cellulase and prokinetics is more effective is unknown.
- We describe two patients with large gastric phytobezoars found on EGD and successfully treated with cellulase plus adjuvant azithromycin for 5 days.

## CASE DESCRIPTION

**Case 1:** A 37-year-old Caucasian woman with type 2 diabetes mellitus, gastroparesis and obesity was presented with a 2-year history of worsening GERD, dyspepsia, early satiety and Gastroparesis Cardinal Symptom Index (GCSI) of 24.

- EGD revealed a large phytobezoar, occupying 60% of stomach (Fig 1a).
- She was treated with Cellulase 5g dissolved in 200ml of water, daily for 5 days on an empty stomach, and azithromycin 125mg liquid bid for 3 weeks.
- Patient reported significant symptom improvement in 1 week.
- A repeat EGD after 2-3 weeks showed normal stomach with no bezoar (Fig 1b), and GCSI improved to 18.

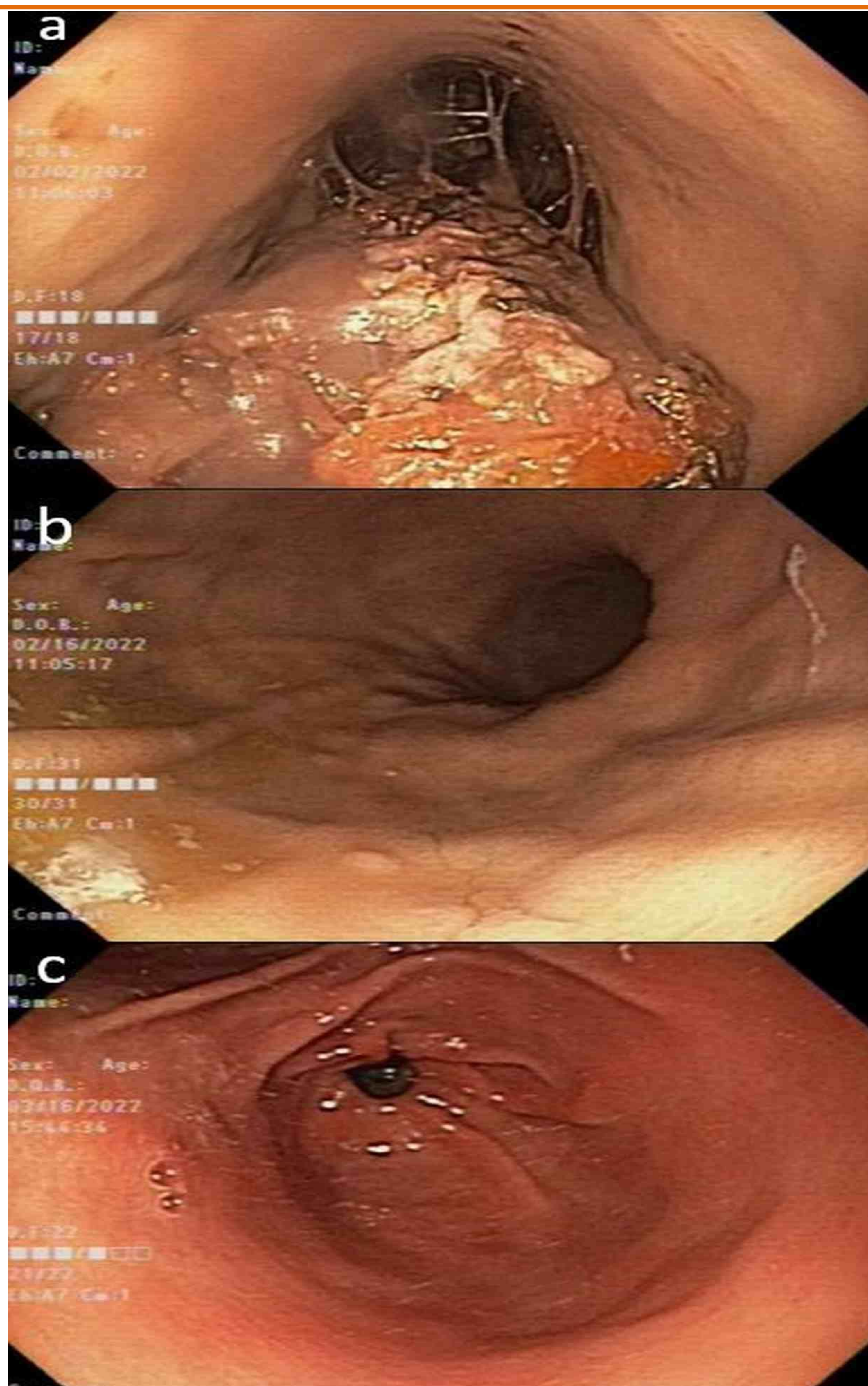


Fig 1a. Large phytobezoar in stomach pre-treatment (Case 1). Fig 1b. Post-treatment EGD after 3 weeks showing normal empty stomach (Case 1). Fig 1c. . Post-treatment EGD after 2 weeks showing normal empty stomach (Case 2).

**Case 2:** A 64-year-old Caucasian woman with type 2 diabetes mellitus and gastroparesis presented with worsening nausea, vomiting, dyspepsia and early satiety and GCSI of 22.

- Examination noted mild epigastric fullness with tenderness and succussion splash.
- EGD noted a large gastric bezoar occupying the 75% of stomach. She was treated with aforementioned regimen.
- EGD after 2 weeks was normal with no bezoar (Fig 1c), and GCSI improved to 16.

## DISCUSSION

- Gastric bezoars are rare with an estimated incidence of 0.3% on upper endoscopy.
- Risk factors include gastric dysmotility, gastric outlet obstruction, anticholinergic agents/opioids or psychiatric problems.
- They can be asymptomatic or cause abdominal pain, nausea, vomiting or early satiety.
- Agents used for chemical dissolution therapy (CDT) with varying results include cellulase, carbonated drinks, papain and acetylcysteine.
- Both of our patients had gastroparesis with poorly controlled diabetes mellitus and intolerance to metoclopramide.
- Possible risks of CDT include possible small bowel obstruction from partially dissolved bezoars.
- Combination therapy with Cellulase (5G), and Azithromycin (125 mg liquid bid, as prokinetic) was safe and effective therapy for gastric phytobezoars without luminal obstruction.