ORIGINAL RESEARCH PAPER

General Surgery

# PHYTOBEZOAR-INDUCED SMALL BOWEL PERFORATION : A RARE CAUSE WITH COMMON SYMPTOMS

**KEY WORDS:** Phytobezoar, Intestinal Obstruction, Perforation

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## INTRODUCTION

- Definition: Bezoars are masses of undigested material in the gastrointestinal tract.
- Phytobezoar: Formed from indigestible plant fibers, seeds (cellulose, tannin, lignin).
- Common contents: celery, pumpkin, orange pulp.
- Site: Most commonly in the stomach, but may migrate to the small bowel causing obstruction.

Phytobezoars are rare, with exact incidence unknown due to underreporting and asymptomatic cases, up 40%–60% of all bezoar among which 0.4%–4% of small bowel obstructions.

**Risk Factors:**
Previous gastric surgery (e.g., vagotomy, partial gastrectomy)
Diabetes mellitus induced gastroparesis
Poor mastication, edentulous patients
High-fiber diet

**Aims/Objectives:**

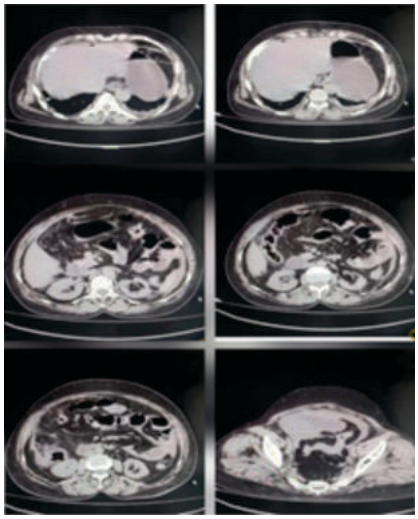
- To highlight the clinical presentation, diagnosis, and management of phytobezoars.
- To discuss the importance of considering phytobezoar in small bowel obstruction.

**Case Summary**
44-year-old Female admitted with c/o diffuse Colicky abdominal pain, abdomen distension, vomiting, obstipation × 4 days with no significant Past medical, surgical illness

O/E Patient conscious, oriented, Dehyration +.
Vitals BP 100/70 mmhg, PR 126b/min RR 32b/min spo2 92% with o2 6lit/min

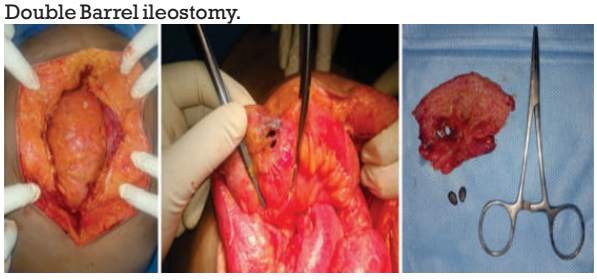
P/A Distended abdomen, Diffuse Tenderness +, Guarding +, Rigidity+ Absent BS.
P/R Tone Normal Collapsed Rectum, no faecal Staining

**Imaging**



**CT Abdomen:** Mild Pneumoperitoneum, Mild to moderate Free fluid in pelvis with suspicious extraluminal intraperitoneal Airpockets suggestive of Hollow viscus Perforation.

**Management**
Emergency exploratory laparotomy done revealed, Omental caking, toxic fluid approximately 500ml aspirated, multiple Watermelon seeds noted all over peritoneum with Two Perforations at Distal ileum approximately 20 cms from IC Junction, Collapsed Distal ileum with clumped Seeds inside. Proceeding with resection of Involved Segment and Double Barrel ileostomy.



HPE : Features suggestive of vascular insufficiency with superficial ischaemic changes.
Post-op: Uneventful recovery

**Types of Bezoars**

| | |
|---|---|
| Phytobezoar | Plant material |
| Trichobezoar | Hair |
| Pharmacobezoar | Medication |
| Lactobezoar | Milk curds (infants) |

**Mechanism:**
Undigested fiber → bezoar formation in small bowel → cause mechanical obstruction
→ Increased intraluminal Pressure→ ischaemia of Involved Segment of Bowel→ leading to Perforation.

**Clinical Presentation**
Nausea, vomiting, pain, distension, Obstipation, Shock
Features of subacute or acute intestinal obstruction, Perforation

**Diagnosis**
Plain X-ray Air-fluid levels
CT scan – shows intraluminal mass with mottled gas
Endoscopy Diagnostic & therapeutic in case gastric bezoars

**Management**
Conservative Small bezoars of prokinetics
Endoscopic removal Gastric bezoars
Surgery Enterotomy and removal of bezoar, Resection anastomosis, ostomy in complicated cases

**Prevention**
Dietary modification (low-fiber)
Treat underlying motility issues
Prokinetic agents in diabetics

## CONCLUSION

Phytobezoar is an uncommon but important differential in small bowel obstruction, especially in post-gastrectomy patients.

Timely diagnosis and intervention prevent complications.

Preventive strategies are essential in high-risk groups.

## REFERENCES

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