# THE WANDERING STONE:A RARE CULPRIT OF BOWEL OBSTRUCTION

Dr Chinmaya Dash[a], Dr Vinay Kumar Tripathi[b]
[a]Department Of General Surgery, [b]Department of Surgical Gastroenterology, Command Hospital(Eastern Command), Kolkata, India

## PRESENTATION

- 64-year-old male
- Known hypertensive and diabetic
- 4-day history of abdominal pain associated with fever, vomiting and obstipation

## EXAMINATION

- Tachycardia
- Elevated blood pressure
- Periumbilical tenderness

## INVESTIGATIONS

- Radiogram erect abdomen: significant number of air fluid levels (figure 1)
- Leukocytosis with neutrophilia
- Elevated urea and creatinine(pre-renal acute kidney injury)
- NCCT Abdomen
  - Gall bladder with air locules within and thickened edematous walls.
  - Rigler's triad
    - cholecystoduodenal fistula (figure 2) .
    - Pneumobilia (figure 3).
    - Approximately 3x2.5 cm well defined hyperdense intraluminal lesion at the transition point (figure 5).

## TREATMENT

- Resuscitation followed by laparoscopic enterolithotomy
- Intra-operative
  - Bowel walk revealed a 4x 3 cm stone was found in distal ileum(figure 5(A)).
  - The stomach, duodenum, jejunum and proximal ileum were distended with collapsed colon.
  - Dense omental adhesions were noticed around the gall bladder.
  - Longitudinal enterotomy of ileum along the antimesenteric border (figure 5(C)) and the stone was delivered (figure 5(D)) and extracted using an endobag.
  - Transverse closure of enterotomy with V lock sutures using Heineke–Mikulicz principle (figure 5(E)).

## POST-OPERATIVE PERIOD

- POD 2:oral sips started
- POD 4:passed flatus; oral diet resumed
- Follow-up ultrasonography of abdomen: no residual gall stone
- Patient asymptomatic at 6 monthly follow-up

Figure 1 -Radiogram of erect abdomen showing significant air-fluid levels

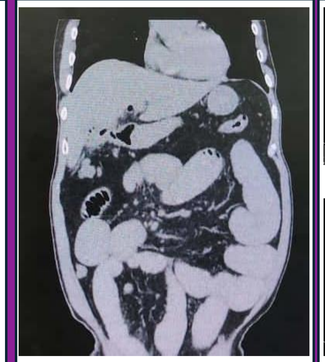

Figure 2 -Coronal view of NCCT abdomen showing ill-defined fat planes between gall bladder and D2 segment of duodenum with possible cholecystoduodenal fistula

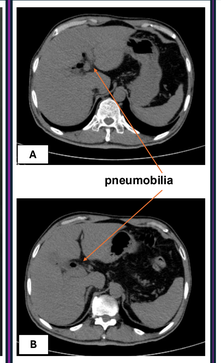


Figure 3 -Axial view of NCCT abdomen showing pneumobilia

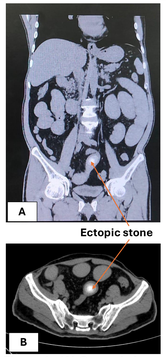


Figure 4 –(A) Coronal view of NCCT abdomen showing hyperdense intraluminal lesion in distal jejunum
(B) Axial view of NCCT abdomen showing hyperdense intraluminal lesion in distal jejunum

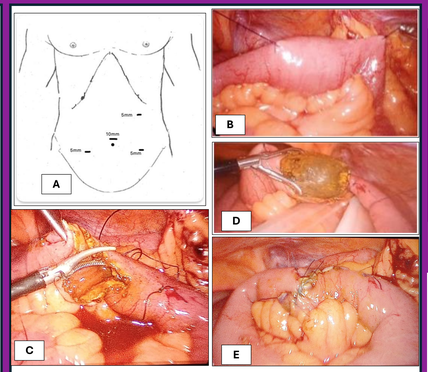


Figure 5: Laparoscopic enterolithotomy
(A) Port position
(B) Impacted gallstone in distal ileum and stay sutures applied
(C) Longitudinal enterotomy with simultaneous suctioning of intestinal contents
(D) Extraction of gallstone
(E) Transverse closure of enterotomy

## DISCUSSION

The optimal surgical strategy remains debated. Surgeons must decide between simple enterolithotomy and a single-stage procedure combining enterolithotomy with cholecystectomy and fistula repair. Evidence suggests that removal of the obstructing stone alone leads to symptom resolution in 80–90% of patients, while spontaneous closure of the biliary–enteric fistula occurs in up to 50% of cases.
Because enterolithotomy is technically simpler and requires shorter operative time, it is often preferred in elderly or physiologically compromised patients presenting with emergency obstruction.

## CONCLUSION

Laparoscopic enterolithotomy is an effective and safe treatment for gallstone ileus in physiologically compromised patients.
In the debate between one-stage and two-stage procedures, patient physiology should guide operative strategy.

## KEY TAKEAWAYS

- Gallstone ileus is a rare but significant cause of small bowel obstruction, particularly in elderly
- CT demonstrating Rigler's triad is diagnostic
- Laparoscopic enterolithotomy provides effective relief of obstruction
- Operative management should be guided by patient's physiological status