AN UNUSUAL CASE OF SMALL BOWEL OBSTRUCTION

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CASE HISTORY

Presentation: A 77 year old male presented with a 1 day history of generalized abdominal pain, vomiting with no stoma output.

Past Medical History: T4a N2b ascending colon adenocarcinoma.
Treated with right hemicolectomy, partial small bowel resection and right iliac fossa ileostomy formation. This occurred 1 year prior to admission.

Clinical Examination: Diffusely tender abdomen.
Observations and inflammatory markers were unremarkable.
Liver function was deranged. **Appearance of stoma was not documented**.

Impression: Small bowel obstruction secondary to adhesions

Radiological Findings

Abdominal X-ray demonstrated **multiple, centrally sited, gas filled loops of small bowel**.

Appearances were in-keeping with small bowel obstruction.

This finding was picked up by the treating team.

Further findings of gas overlying the liver, indicative of **pneumobilia**, and a **dense opacity projected over the right iliac bone** were not picked up on initial assessment.

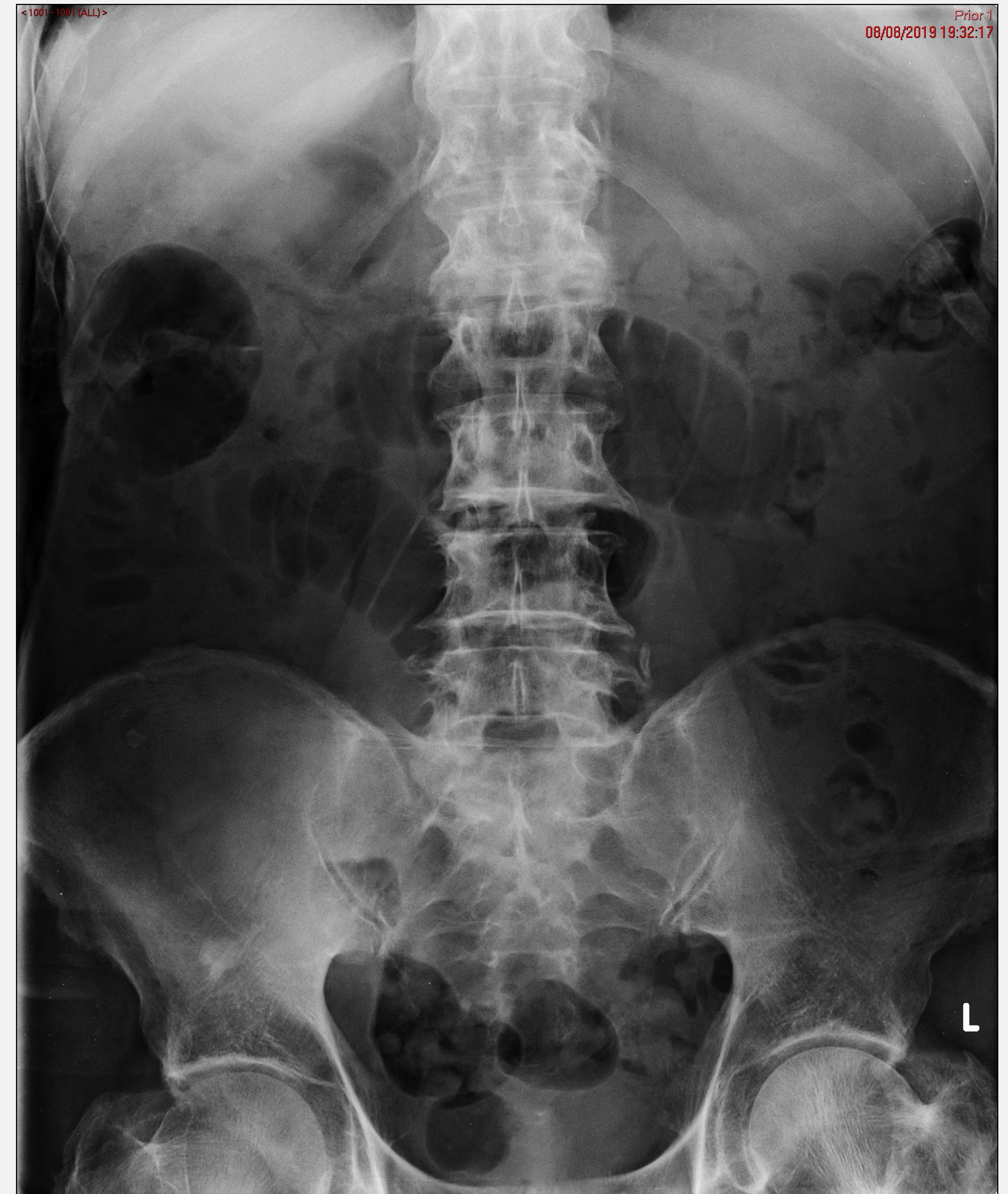


Fig 1: Dilated small bowels loops, pneumobilia and RIF dense opacity

Subsequent CT abdomen and pelvis showed a **small bowel obstruction.**

This was secondary to a **2cm gallstone lodged in the ileostomy tract** (Figure 2 and 3).

A second 8mm gallstone was seen within the distal small bowel.

The gallbladder contained a **large stone and gas** with evidence of a **choledochoduodenal fistula** (Figure 4)

No evidence of recurrent malignancy was found.

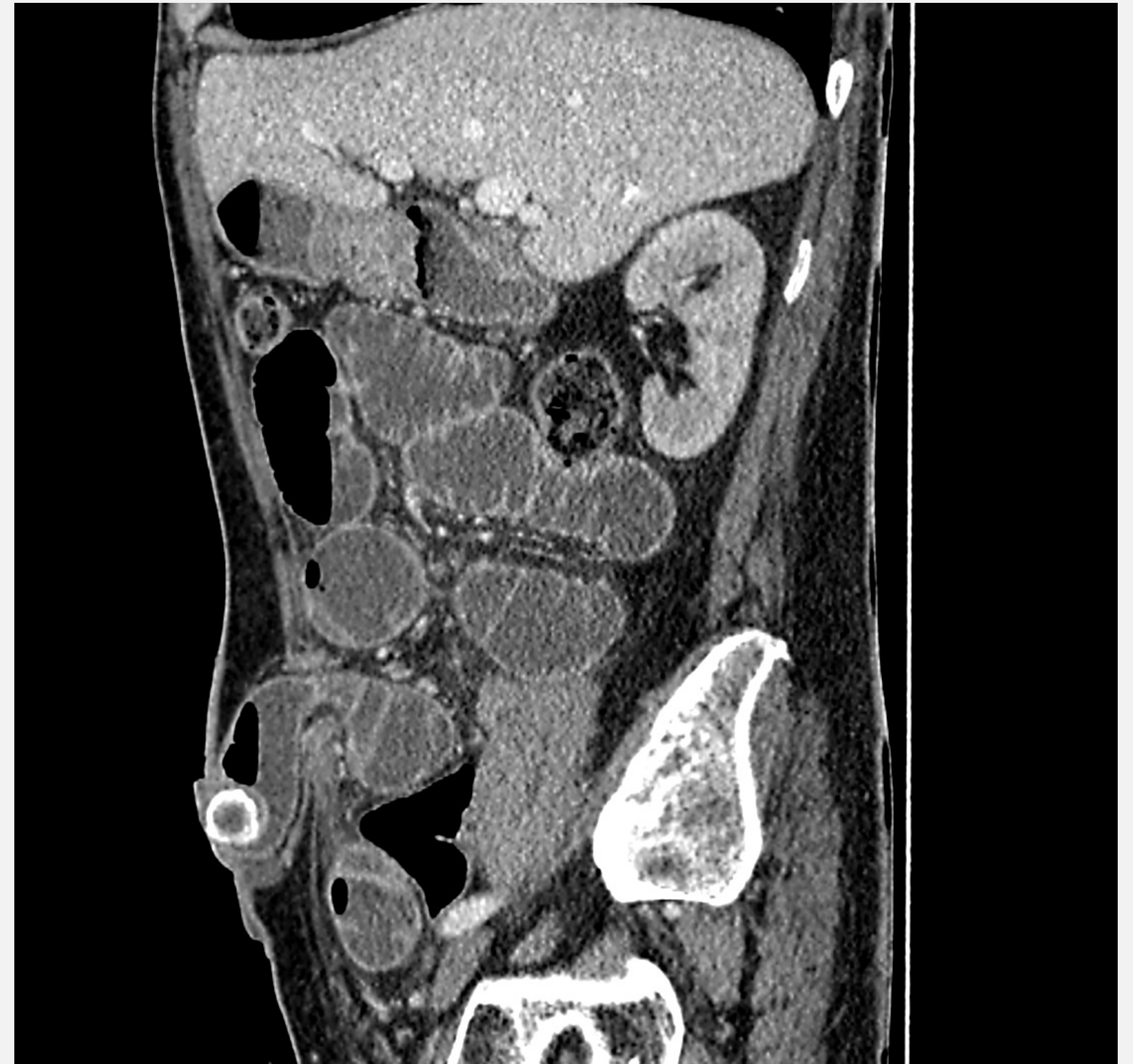


Fig 2: CT in sagittal plane showing site of gallstone within ileostomy tract and secondary small bowel obstruction.

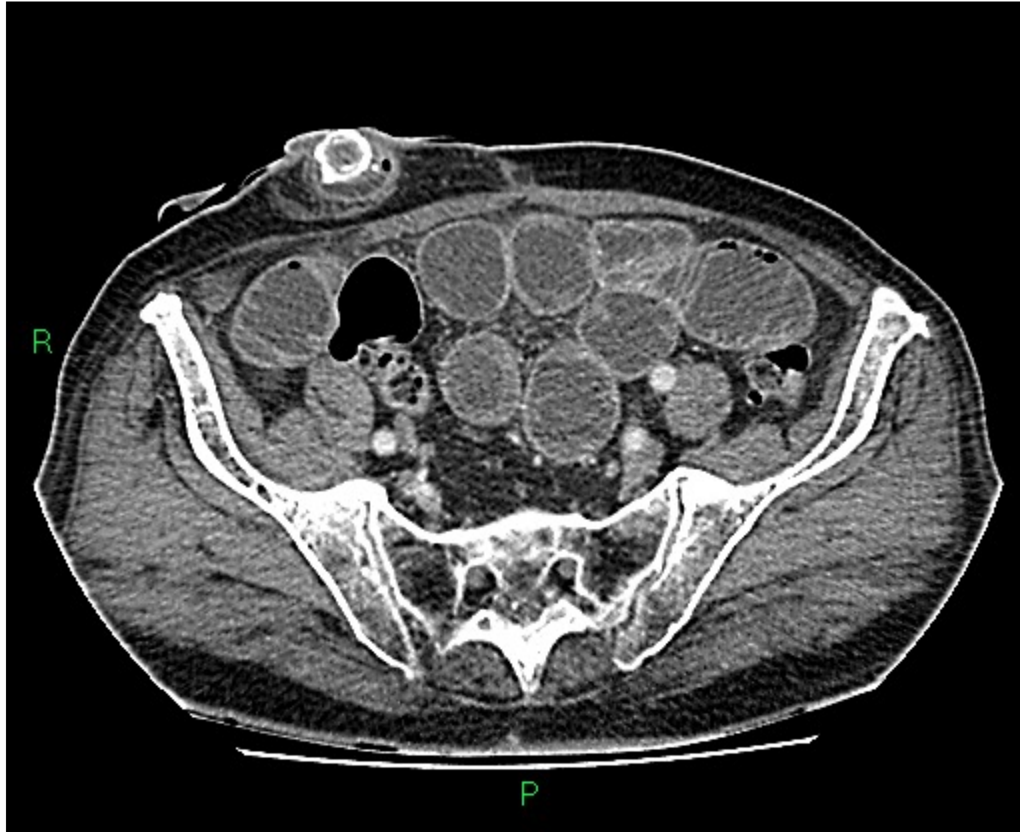


Fig 3: CT in axial plane showing multiple dilated loops of small bowel secondary to gallstone within ileostomy tract.

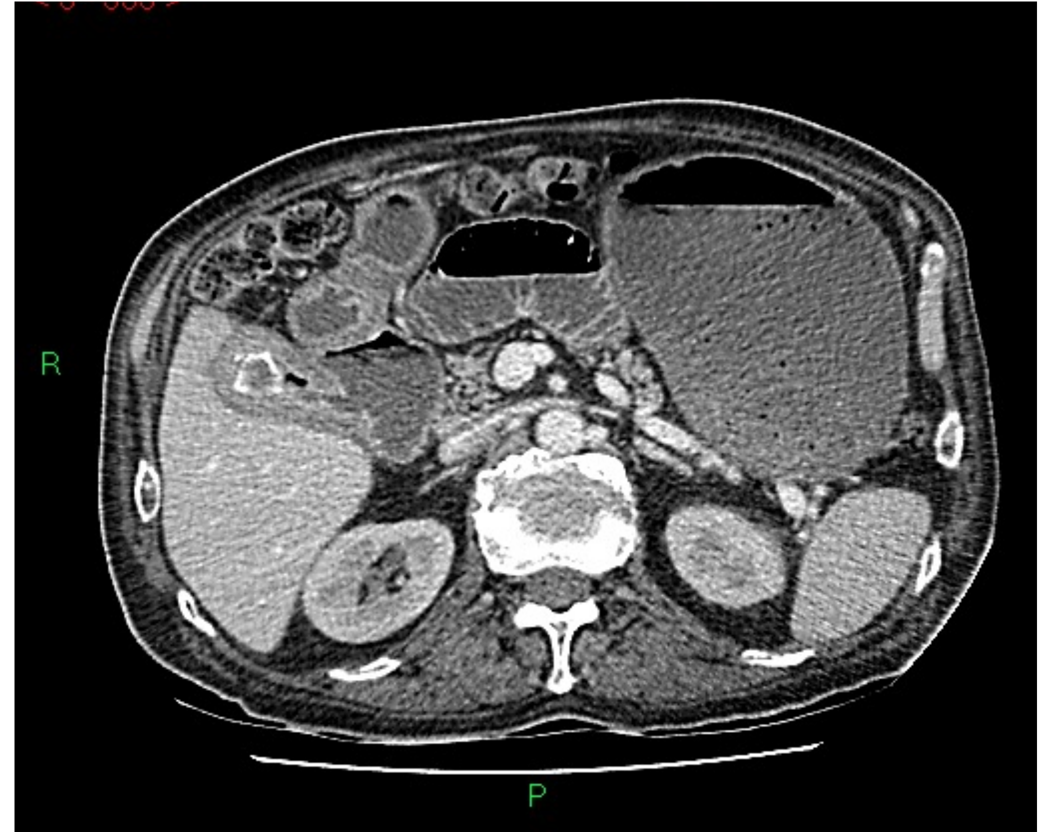
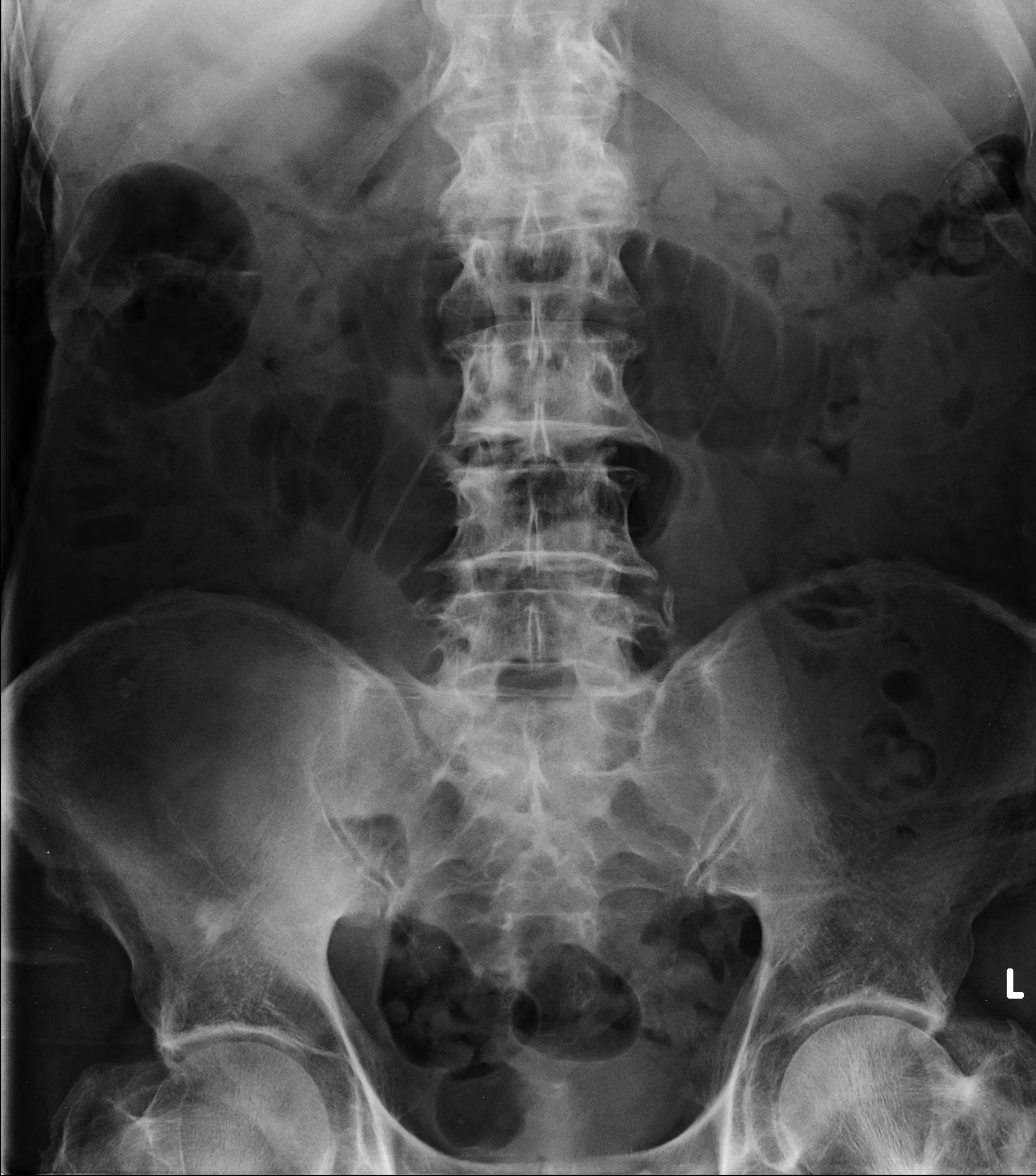


Fig 4: CT in axial plane showing large gallstone within gallbladder and choledochoduodenal fistula.



- **Final Diagnosis: Small bowel obstruction secondary to gallstone ileus, gallstone lodged in ileostomy tract.**
- **The gallstone within the ileostomy was removed, decompressing the small bowel obstruction.**
- **The patient made a full recovery.**

DISCUSSION

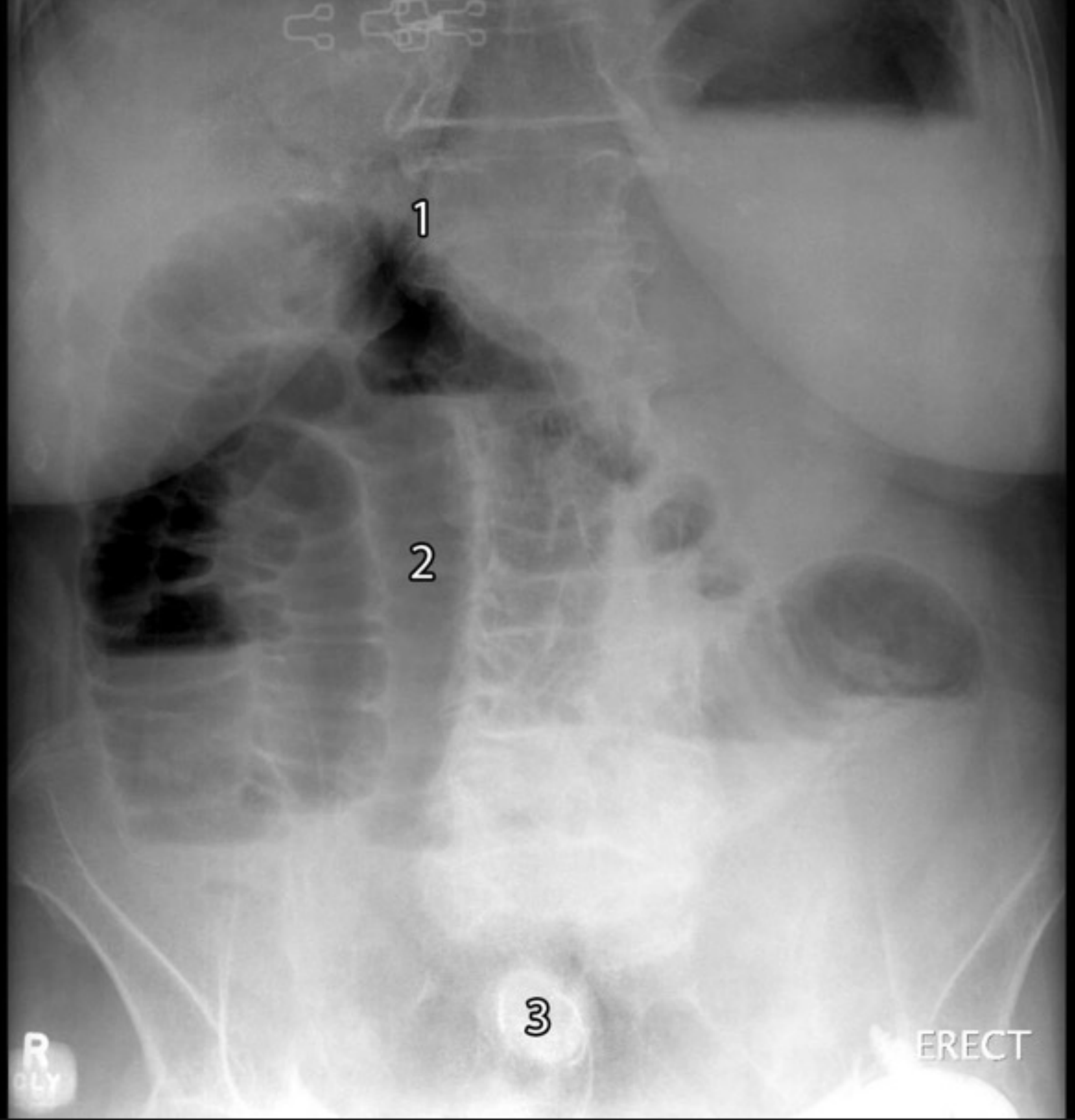
Gallstone ileus, an uncommon complication of **chronic cholelithiasis**, is one of the **rarest** causes of a **mechanical bowel obstruction**[1].

It is the **impaction** of a gallstone within the **gastrointestinal tract** which occurs due to a **biliary-enteric fistula**[2].

Gallstone ileus is more common in **females**, over **60s**, those with **repeated** episodes of **acute cholecystitis** and with stones **>2cm**[3].

IMAGING

- Can be identified on plain film as **Rigler Triad**.
  → Pneumobilia
  → Small bowel obstruction
  → Ectopic calcified gallstone
- Contrast enhanced CT imaging used for diagnosis of gallstone ileus has a sensitivity of 93%[4].



Case courtesy of Frank Gaillard, Radiopaedia.org, rID: 6906

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