

# Case Presentation: 54 Year Old Man with Acute Abdominal Pain

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# History of Present Illness

- 54 year-old man with no significant past medical history presents to the ED for 20 hours of waxing and waning central abdominal pain associated with nausea and vomiting
- Last bowel movement was 3 days prior
- No pain on exertion.
- No concerns for an abdominal hernia
- Patient has intentionally lost 75 lbs over last 9 months

# Additional History

No past surgical history.

No medications. No allergies.

No significant family history.

Patient drinks socially. No drug use or smoking.

ROS:

No chest pain, no SOB, no fevers / chills, no HA, no leg swelling, no dysuria, no testicular pain or swelling, no decreased appetite, no radiation to the back.

# Physical Exam

162/94 71 98.7F 20 96% on room air

Patient appears uncomfortable

- General: A&Ox4
- Resp: CTA BI      Card: RRR no M
- Abd: TTP diffusely      Skin: warm/dry
- Extremities: all pulses 2+ bl
- Neuro: 5/5 strength x 4

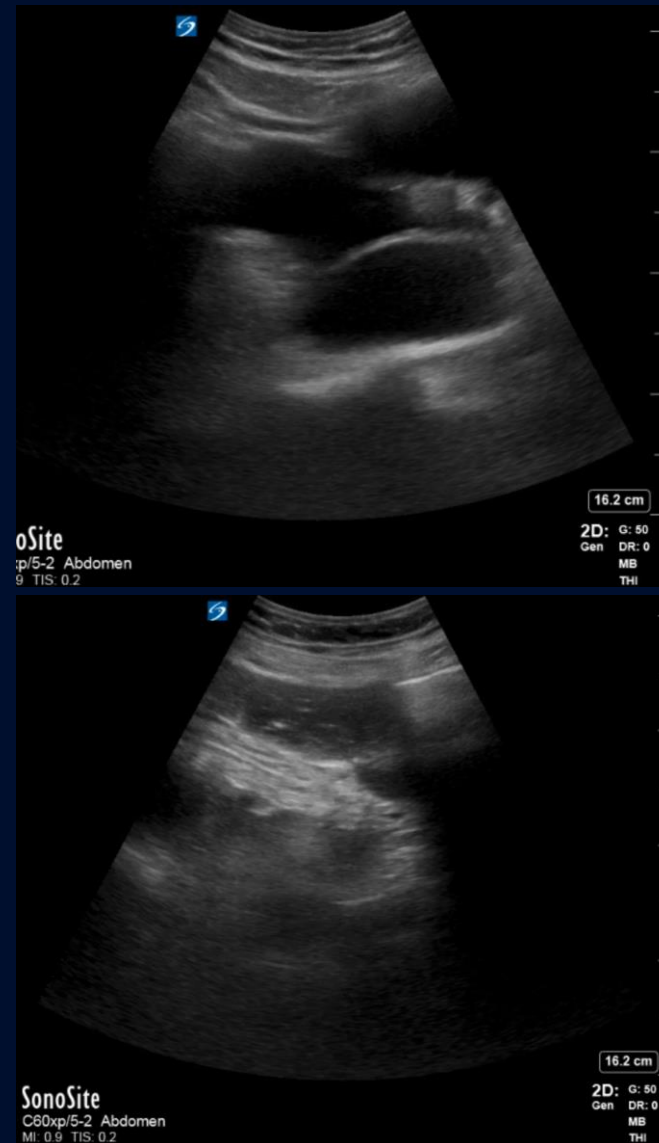
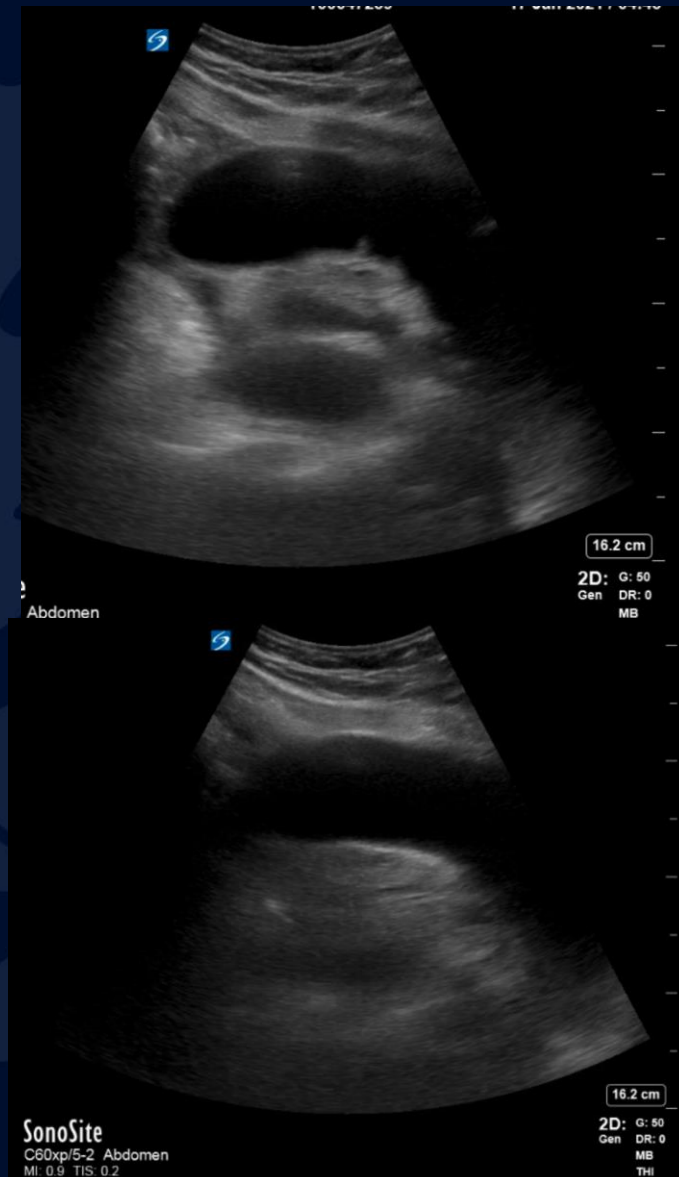
# Assessment and Workup

Labs ordered: CBC, BMP, lactic acid

Imaging:

1. PoC Ultrasound
2. CT of the abdomen and pelvis with Intravenous contrast
3. XR abdomen

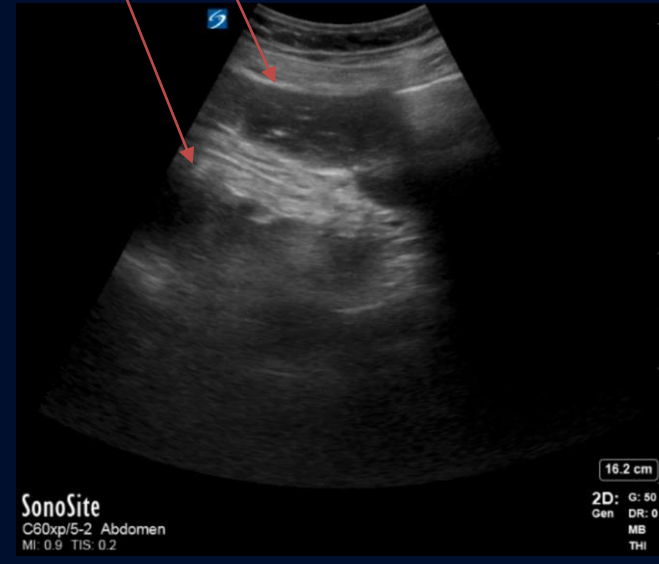
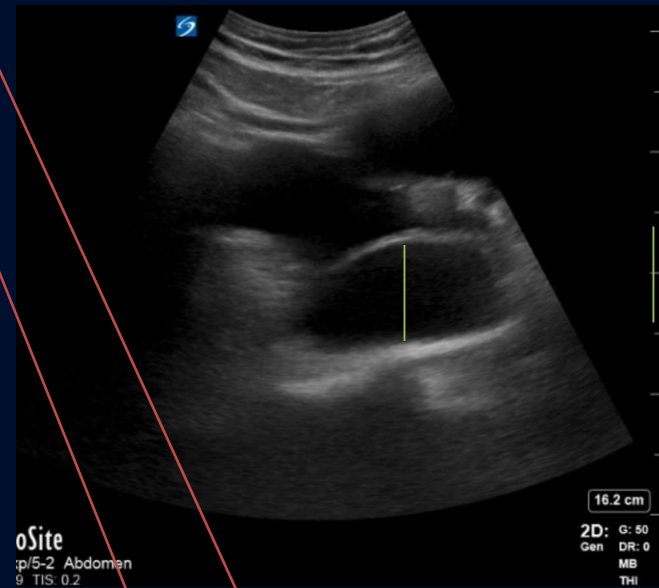
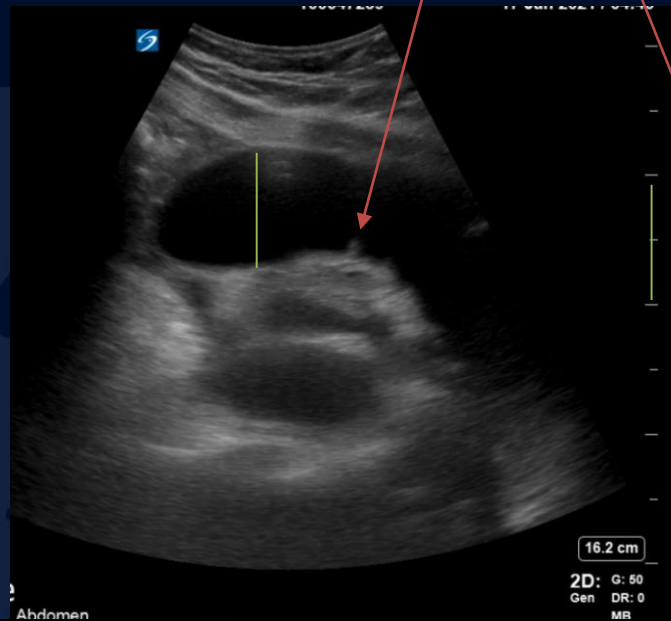
# PoC Ultrasound



Alternating peristalsis present

Plicae circularis present

Fluid-filled small bowel lumen >2.5 cm

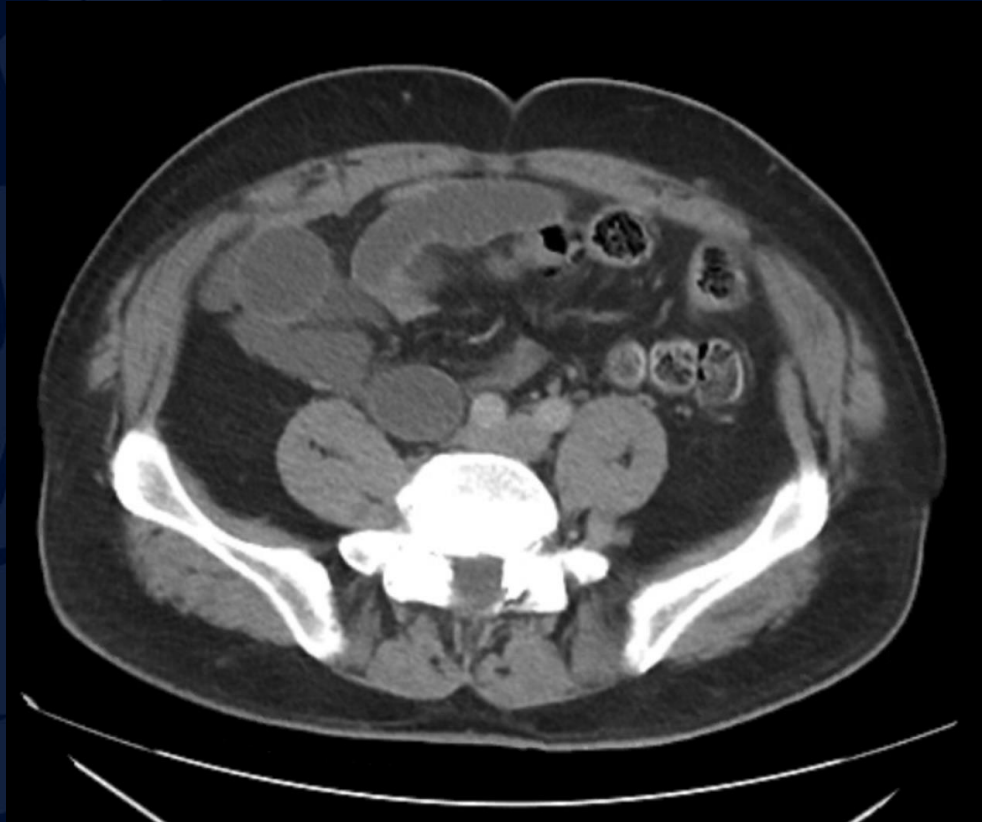


# Course

- Because of the high clinical suspicion for small bowel obstruction and positive findings on PoC ultrasound, an NG tube was placed in the ED, Abdominal XR and CT abdomen with intravenous contrast was ordered to confirm the diagnosis
- IV pain medication and antiemetics were given
- Surgery was consulted



# CT of the Abdomen and Pelvis with Intravenous Contrast



# CT of the Abdomen and Pelvis with Intravenous Contrast



# CT Abdomen with Intravenous Contrast

Evidence of multiple dilated small bowel loops consistent with a mechanical small bowel obstruction.

Three transition points within the right lower quadrant consistent with closed-loop small bowel obstruction.

Mural thickening and mesenteric congestion involving some of the affected small bowel concerning for venous congestive changes.

# Differential Diagnosis

1. Small bowel obstruction
2. Large bowel obstruction
3. Constipation
4. Intestinal ileus
5. Diverticulitis
6. Mesenteric Ischemia
7. Viral Gastroenteritis
8. Intestinal Perforation

# Diagnosis?

# Closed Loop Small Bowel Obstruction

- Small Bowel Obstruction (SBO) is an interruption of bowel contents due to mechanical obstruction or dysfunction in peristalsis (i.e. paralytic ileus).
- The most common cause of an SBO is adhesions from prior surgery or incarcerated hernias.
- This patient's presentation of SBO is rather interesting because he did not have prior surgeries or hernias, and no findings on imaging of tumors, diverticula, foreign body, strictures (Crohn) or gallstones.
- SBO presents with colicky abdominal pain, nausea, vomiting (bilious), and late onset constipation or obstipation.
- Patients can present with symptoms of dehydration, diffuse abdominal tenderness, tympanic abdomen to percussion and high-pitched bowel sounds (*Borborygmi*).

# Closed Loop Small Bowel Obstruction

- Abdominal XR is the best initial test in *hemodynamically unstable* patients.
- CT abdomen with IV and oral contrast is the best initial test in *hemodynamically stable* patients.
- Abdominal ultrasound is an easy bedside test in patients with suspected SBO and contraindication to CT (contrast allergy) or pregnancy.
  - - US diagnostic criteria include: 1. Dilated bowel loops >2.5 cm, 2. plicae circularis, 3. alternating peristalsis, 4. thickened bowel wall
- Treatment includes electrolyte correction, NG tube, NPO, IV analgesics and antiemetics.
- Emergency surgery is indicated for Closed Loop SBO.

# Sources

1. Bordeianou L, Yeh DD, Soybel DI, Hockberger RS, Chen W. Epidemiology, clinical features, and diagnosis of mechanical small bowel obstruction in adults. In: Post TW, ed. UpToDate .Waltham, MA: UpToDate.<https://www.uptodate.com/contents/epidemiology-clinical-features-and-diagnosis-of-mechanical-small-bowel-obstruction-in-adults>