



2025

KARNATAKA RADIOLOGY EDUCATION PROGRAM

CASE PRESENTATION

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PRESENTER: Dr Jay, PG Resident

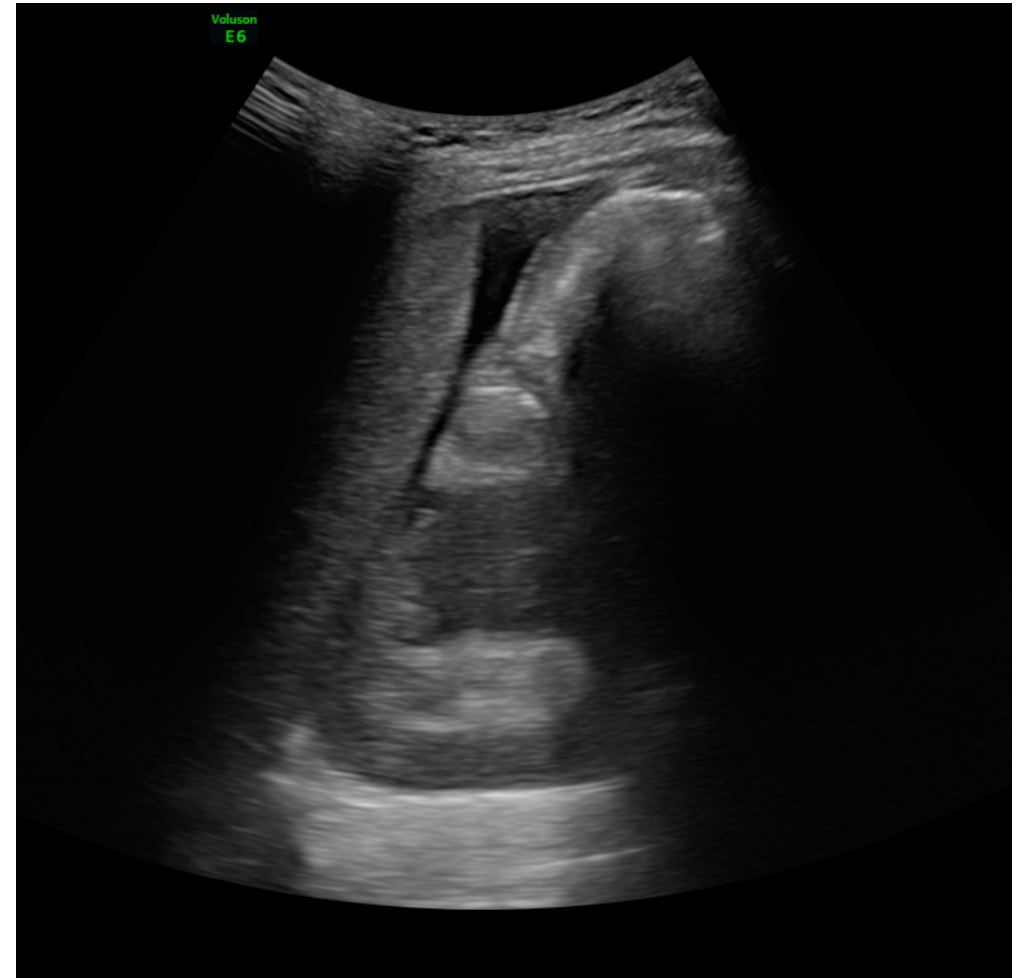
CLINICAL HISTORY

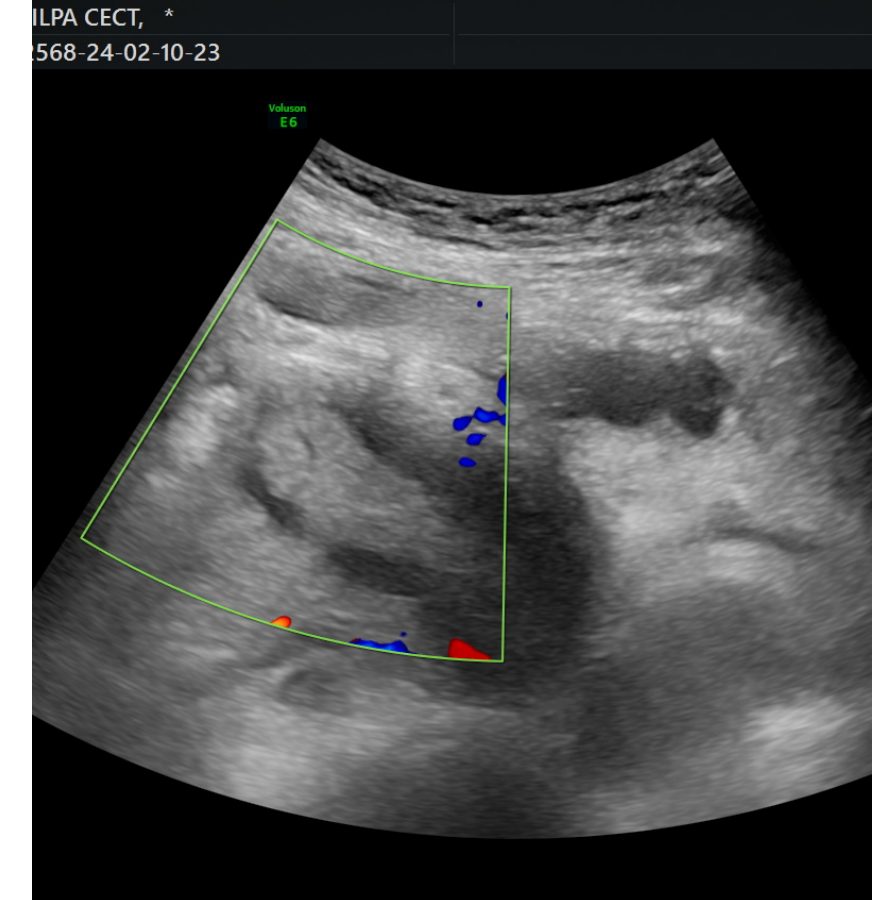
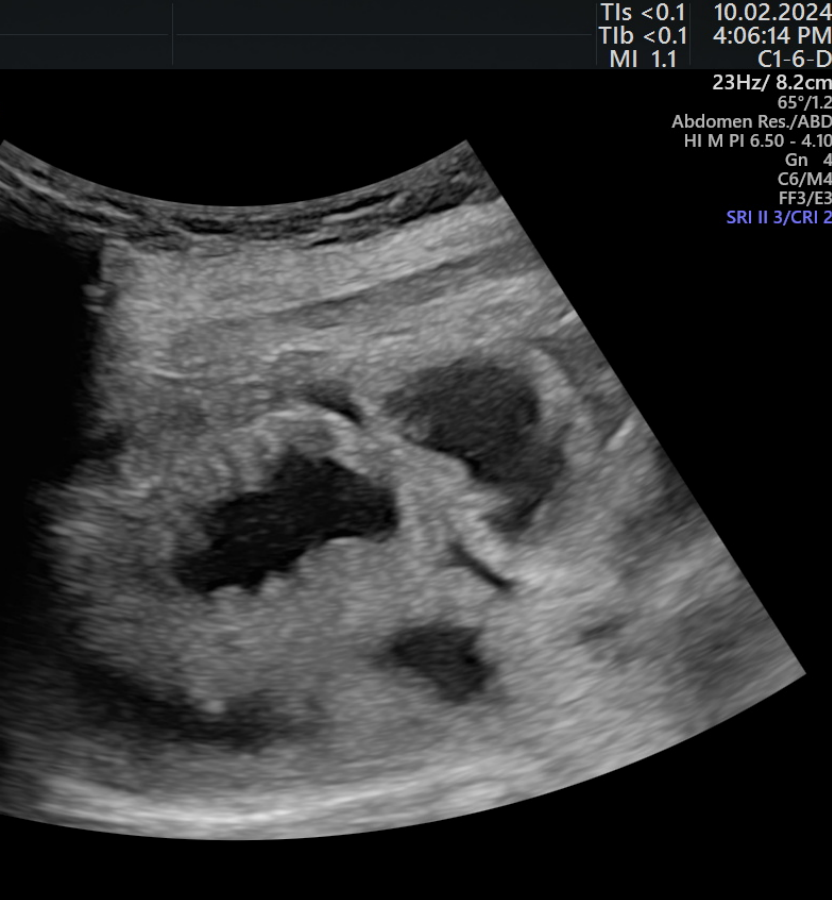
- 18-year-old female presented with c/o acute onset pain abdomen, nausea and vomiting for 10 days.
- No h/o fever, loose stools, burning micturition.
- Normal menstrual history.
- H/o multiple episodes of similar complaints in past, treated conservatively.



- Erect abdominal radiograph shows multiple air fluid levels in the right side of the abdomen.
- Soft tissue shadows are poorly visualized. Increased density of abdomen. Paucity of bowel gas shadows- likely secondary to ascites.
- No e/o free air under diaphragm.
- Pro-peritoneal fat planes maintained.

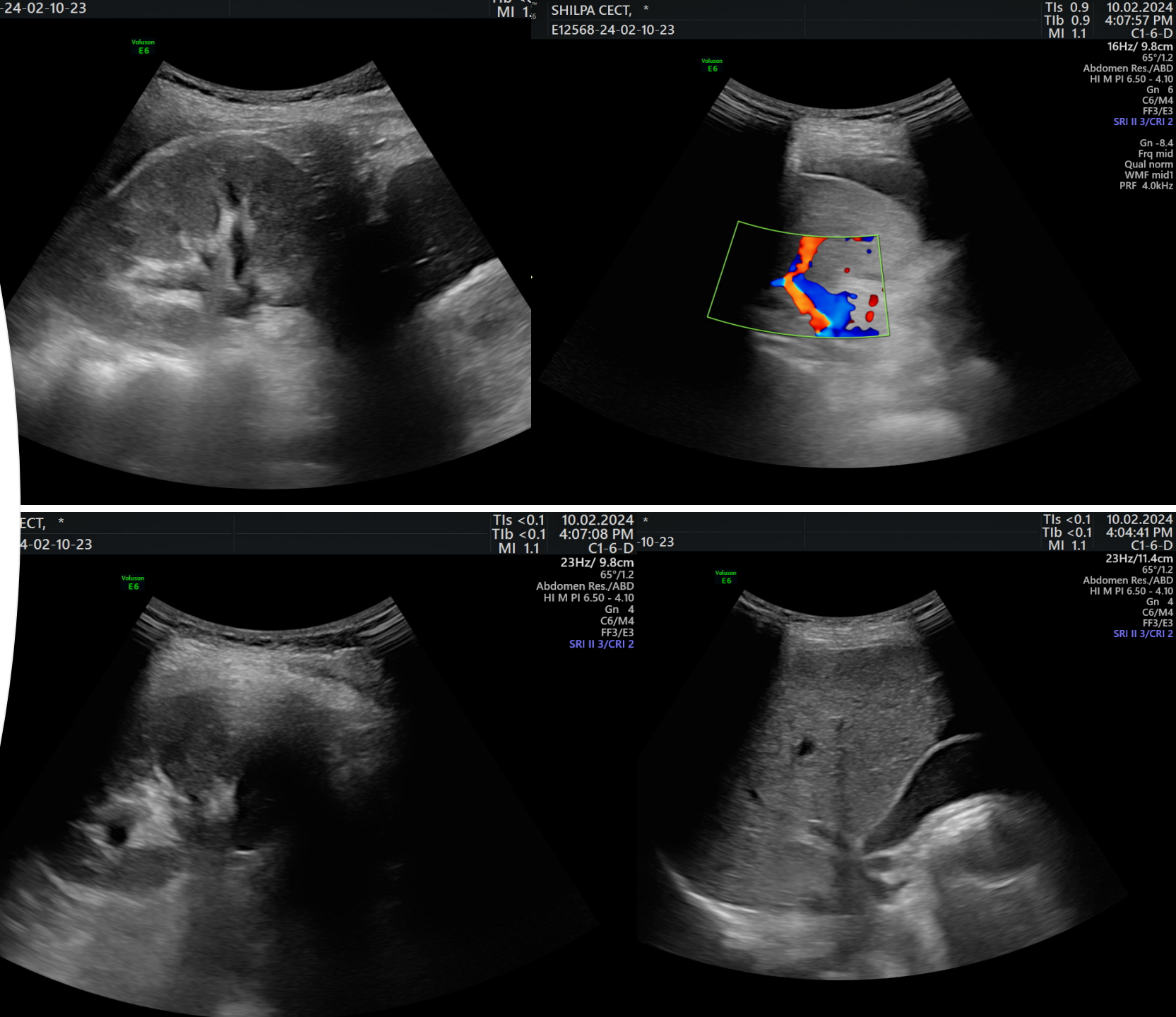
Anechoic free fluid was noted in subhepatic, perisplenic and interbowel region- s/o ascitis.





- Bowel loops were fluid filled, dilated (3cm), edematous and showed increased wall thickness.
- The bowel loops showed absent vascularity on color doppler study.

Rest of the abdominal organs were unremarkable.



Tls 0.1 10.02.2024
Tlb 0.1 4:19:30 PM
MI 1.3 9L-D

27Hz/ 7.0cm

1.0
BOWEL/SM P
HI L PI 11.60 - 3.00
Gn -4
C8/M7
FF1/E2
SRI II 2/CRI 2

Voluson
E6



Im: 66/352
Se: 4

A

ABDOMEN/PELVIS
Thin Plain



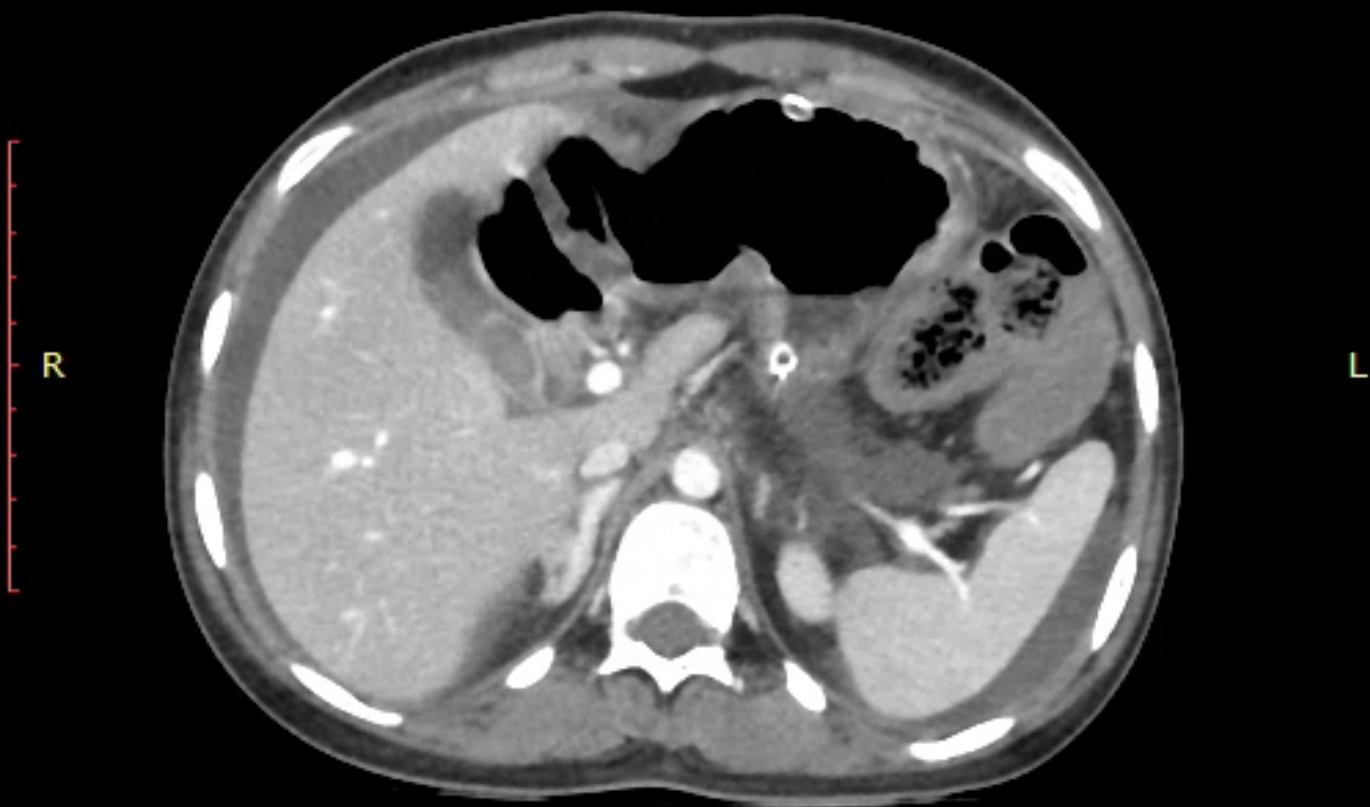
- Axial section of NCCT abdomen shows there is twisting of the small bowel loops in the right lumbar region. Calcification is noted in the centre.
- With edematous bowel loops. There is mesenteric free fluid, fat stranding and enlarged mesenteric lymph nodes noted.

Im: 72/352

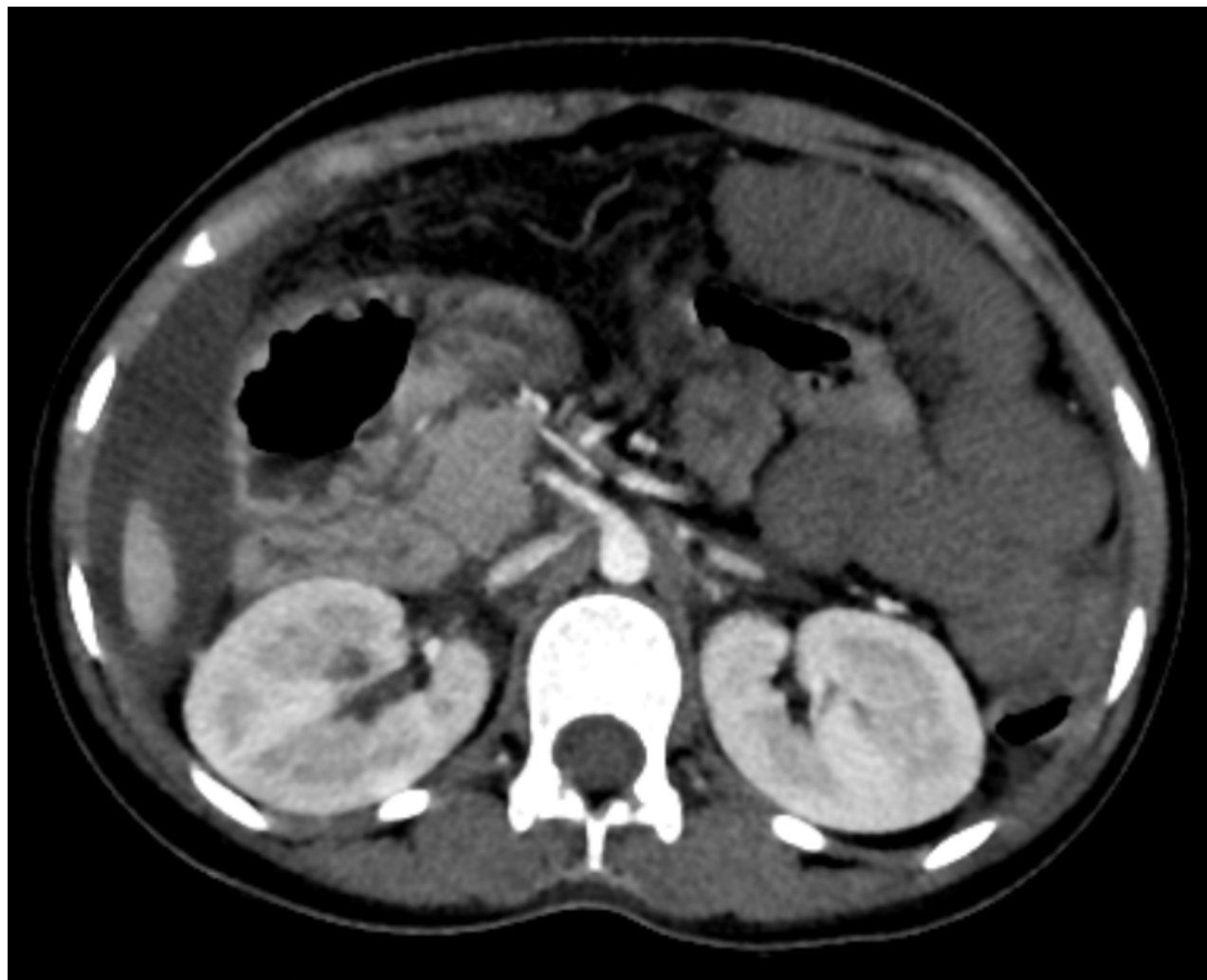
Se: 7

A

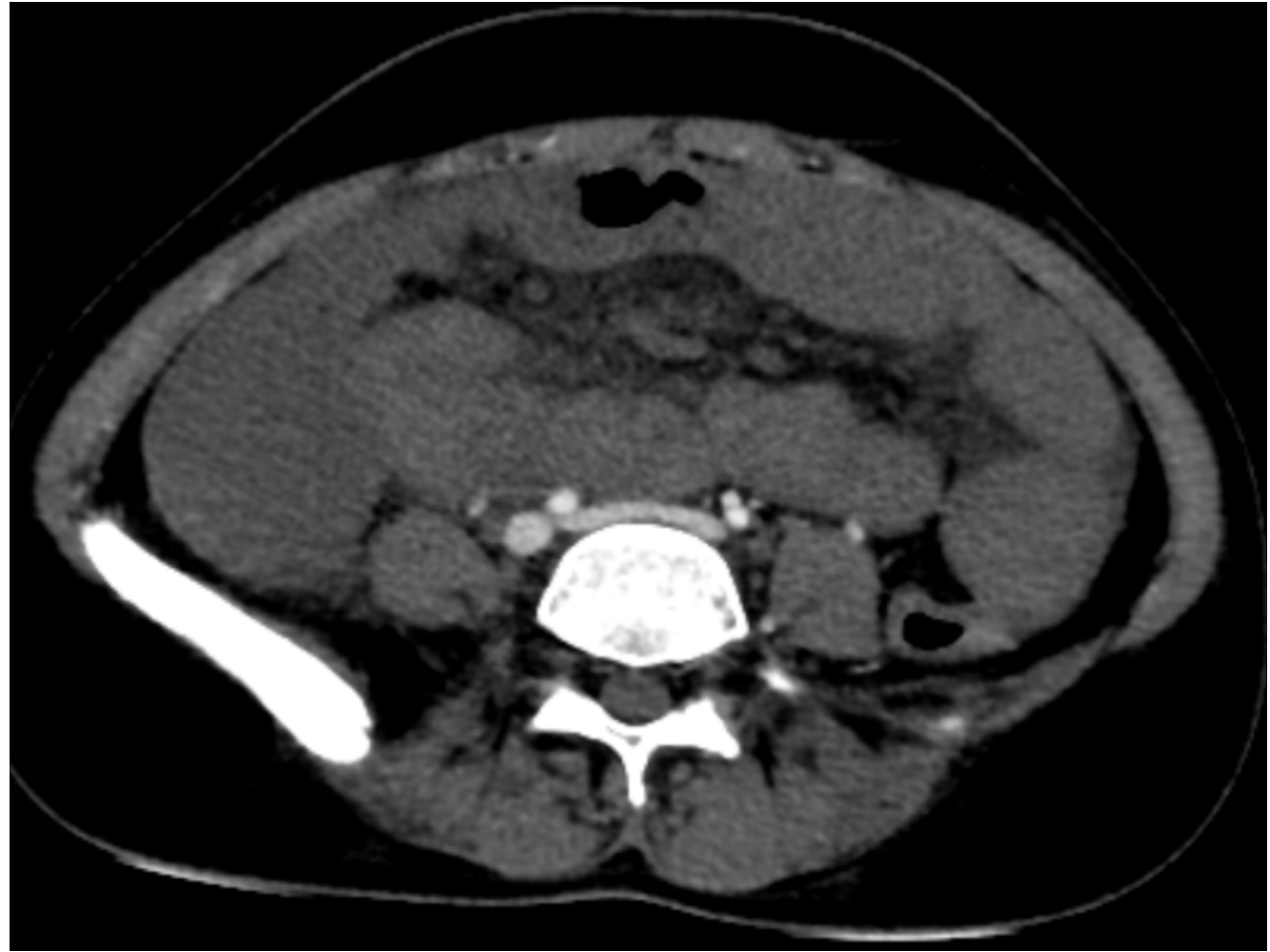
Arterial Phase Thin



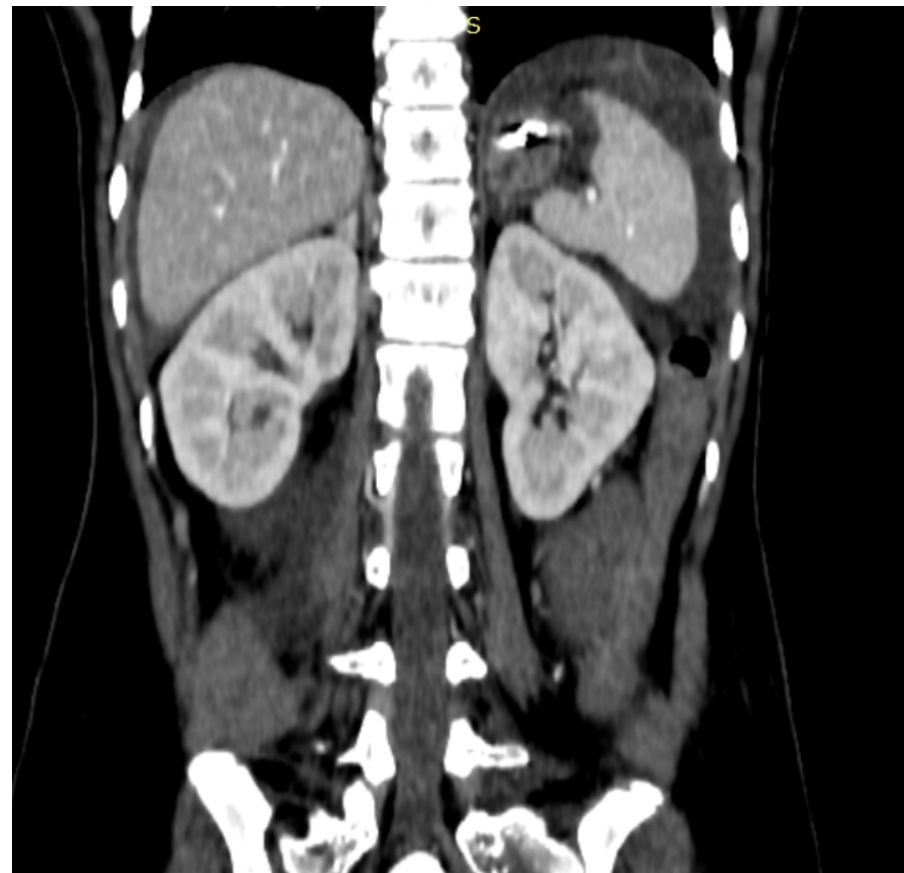
- Cine clip axial sections of CECT abdomen during arterial phase showing twisted bowel loops more than 720 degree in anticlock wise direction giving a whirlpool sign seen on the right side of abdomen.
- Only proximal 4-5cm of SMA is seen opacified by contrast and it is seen going into the whirlpool.
- Reversal of SMA SMV relationship is also noted.
- Normal enhancement of stomach and D2 segment of duodenum noted.
- Liver, gall bladder, spleen adrenals shows normal enhancement.
- Free fluid is noted in the perihepatic, pericholecystic, perisplenic and interbowel region.



These are sagittal MIP (maximum intensity projection) images showing only proximal 4-5 cm of SMA opacified, with reversal of SMA SMV relationship.



These are coronal and axial post contrast images showing absent enhancement of small bowel, ascending colon and right half of transverse colon.



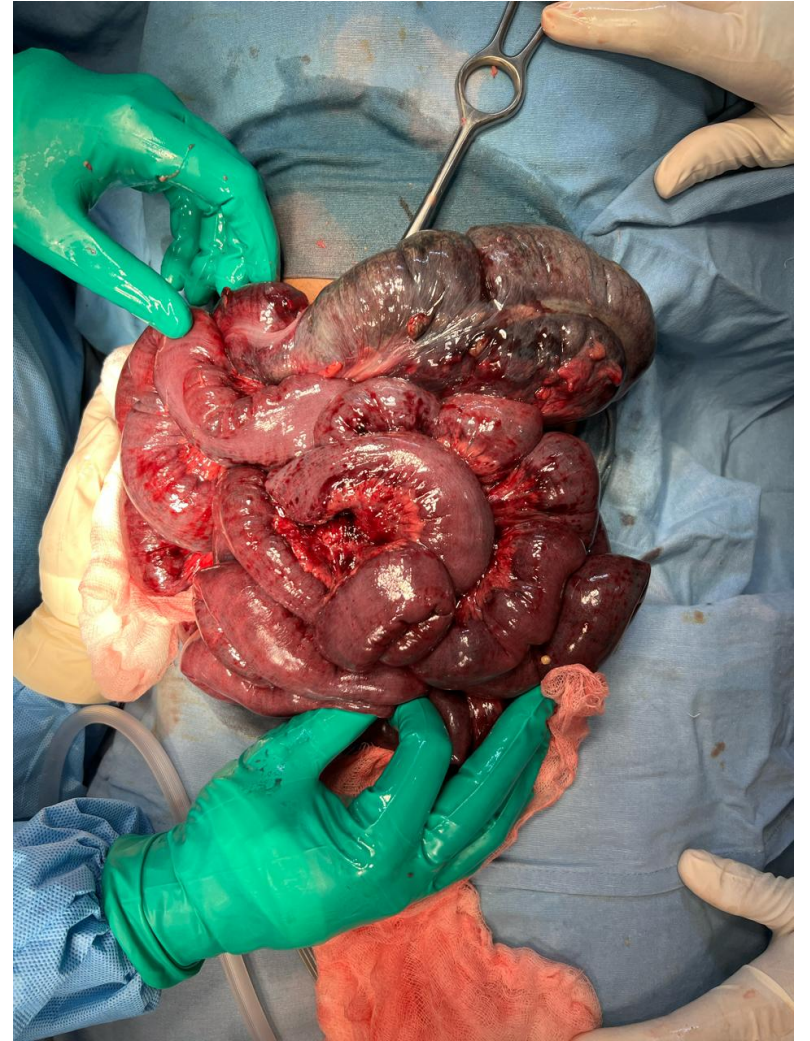
These are coronal post contrast sections showing normal opacification of Inferior mesenteric artery and its branches, with normal enhancement of left half of transverse colon, and descending colon.

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- Liver spleen kidneys uterus and rectum is normal in size shape and post contrast enhancement.



IMPRESSION

- Whirlpool sign around SMA-SMV with malrotation of bowel.
 - Non opacification of SMA and its branches with calcification & reversal of SMA and SMV relationship.
 - Absent post contrast enhancement of jejunum, ileum and colon up to transverse colon
 - Moderate Ascites
 - Mesenteric lymphadenopathy
- **F/S/O Midgut volvulus with malrotation, small bowel obstruction and bowel ischemia (SMA territory).**



OT findings- There was ischemia from D2 segment of duodenum to transverse colon with frank necrosis of distal ileum and colon.

THANK YOU