KARNATAKA RADIOLOGY EDUCATION PROGRAM

CASE PRESENTATION

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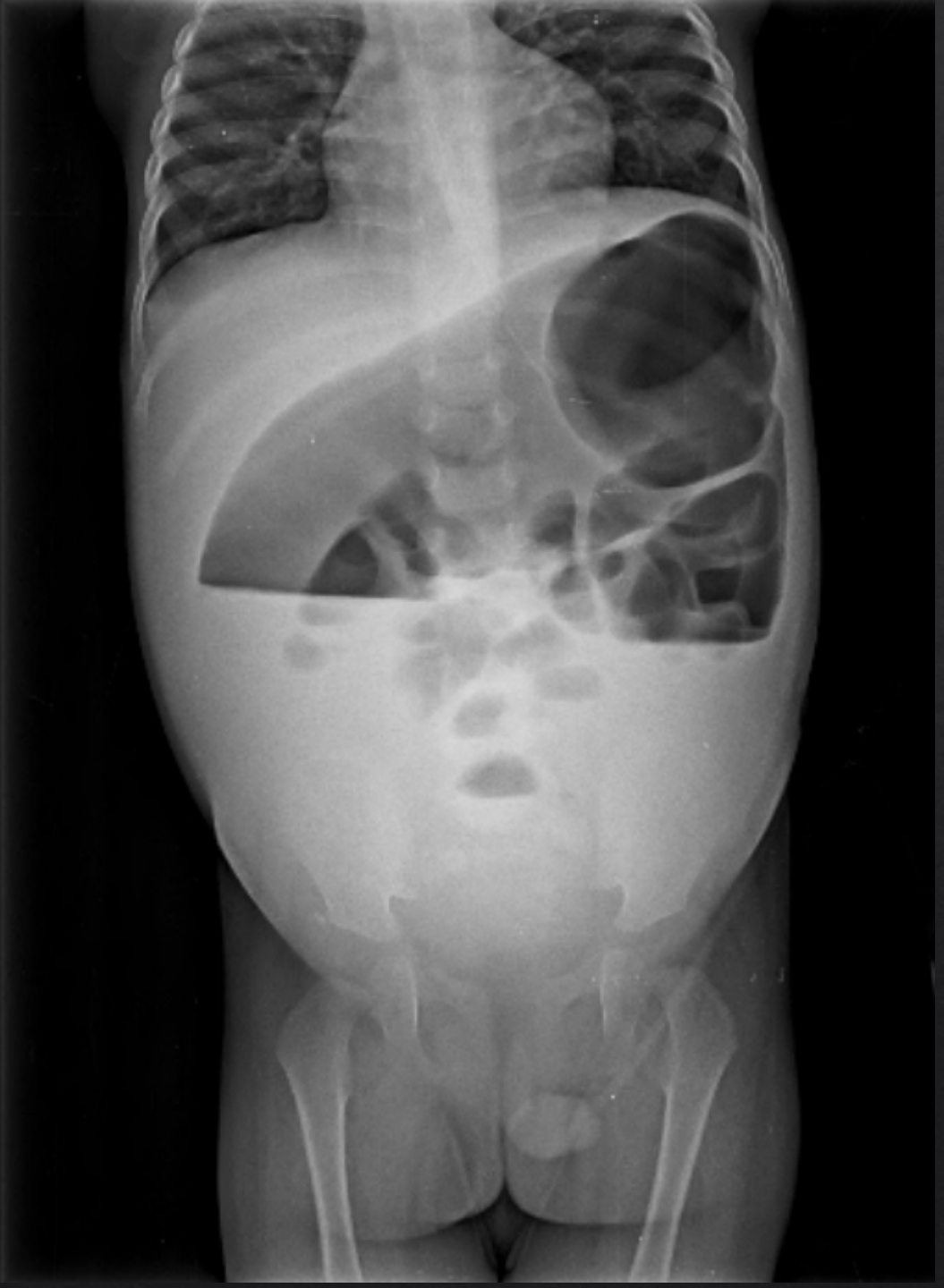
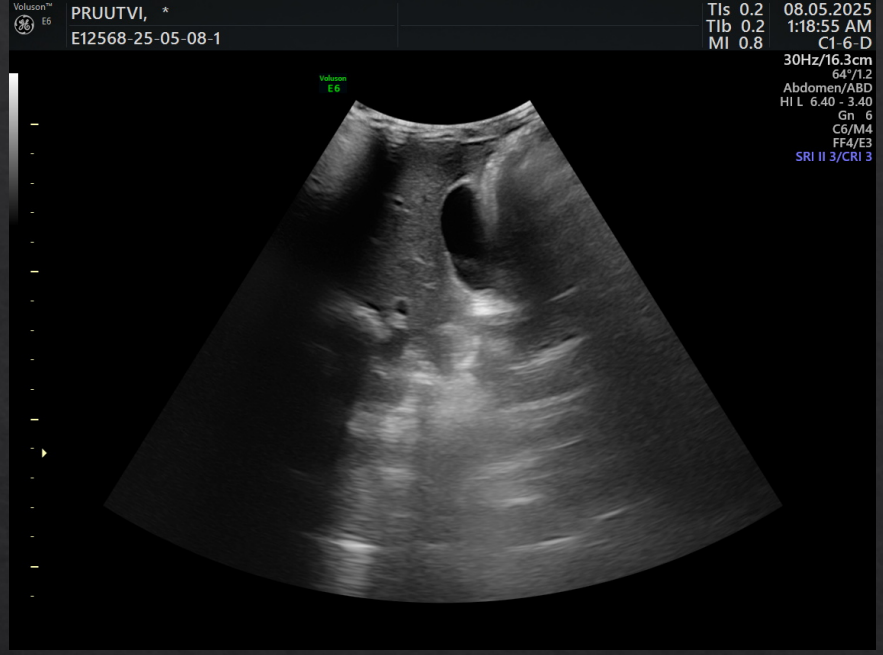
- A 16-month-old male baby came with complaints of abdominal distention for 15 days
- H/o streaky passage of stools for 15 days
- H/o vomiting for 2 days (4-5 episodes/day), non-bilious, contains food particles
- No h/o fever/ burning micturition

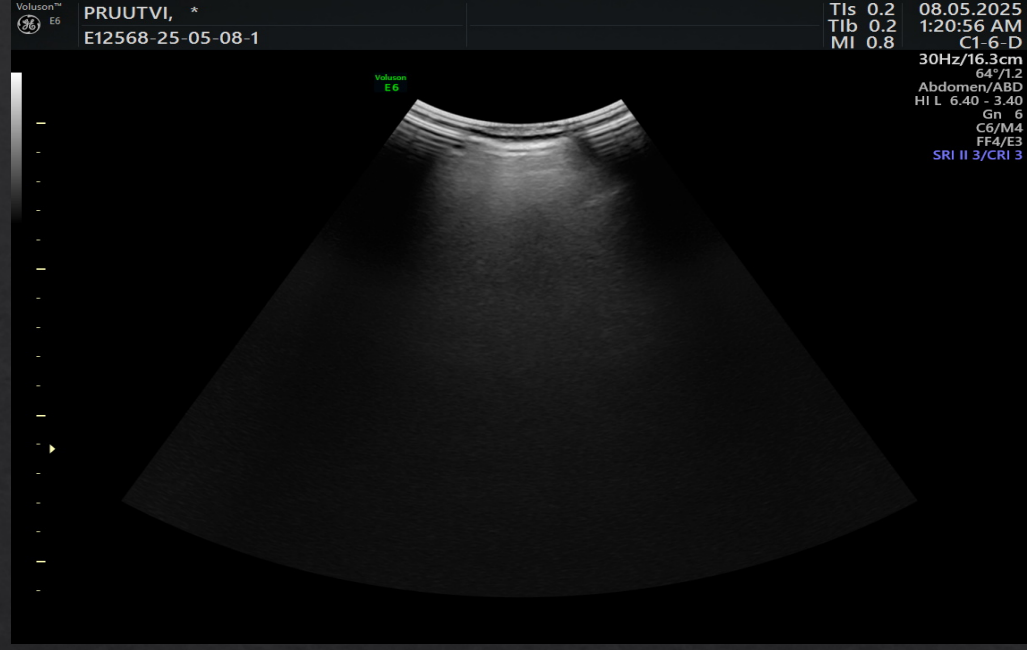
Past History:

- ANC scans were done and said to be normal.
- Single live normal vaginal delivery at term.
- Diagnosed with imperforate anus at birth.
- Treated with 3 staged surgery and anal canal was created (Posterior sagittal anorectoplasty).

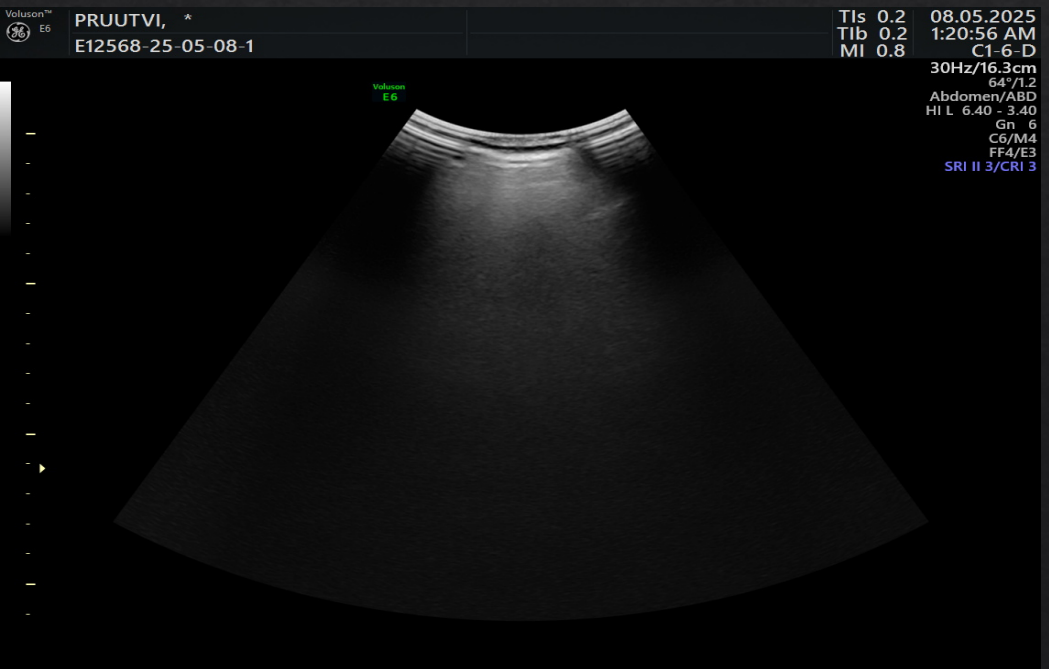


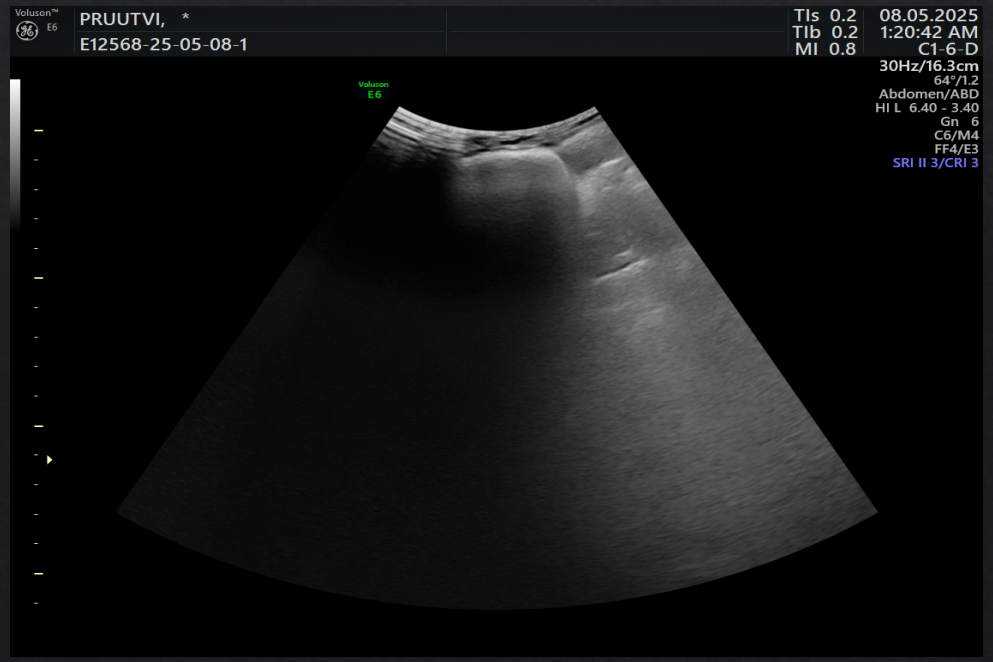
Plain Abdominal radiograph in AP projection shows abnormally dilated bowel loops noted in the left hypochondriac and umbilical region, likely transverse colon (loss of mucosal pattern due to abnormal stretching of bowel loops). Evidence of multiple air fluid levels noted. Absence of rectal gas shadow noted. Pro-peritoneal fat planes appear convex. ➔S/o intestinal obstruction involving small and large bowel loops.

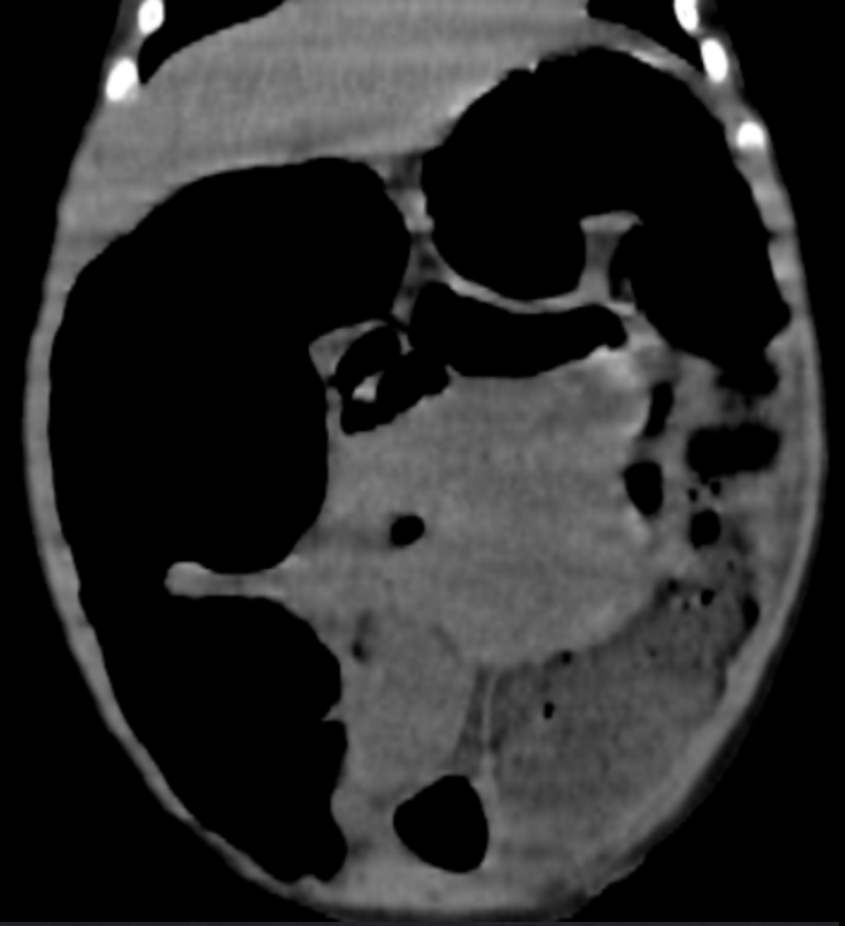




On USG Abdomen and Pelvis screening, multiple linear hyperechoic areas giving reverberation artefacts noted s/o dilated bowel loops. No evidence of active peristalsis noted within.

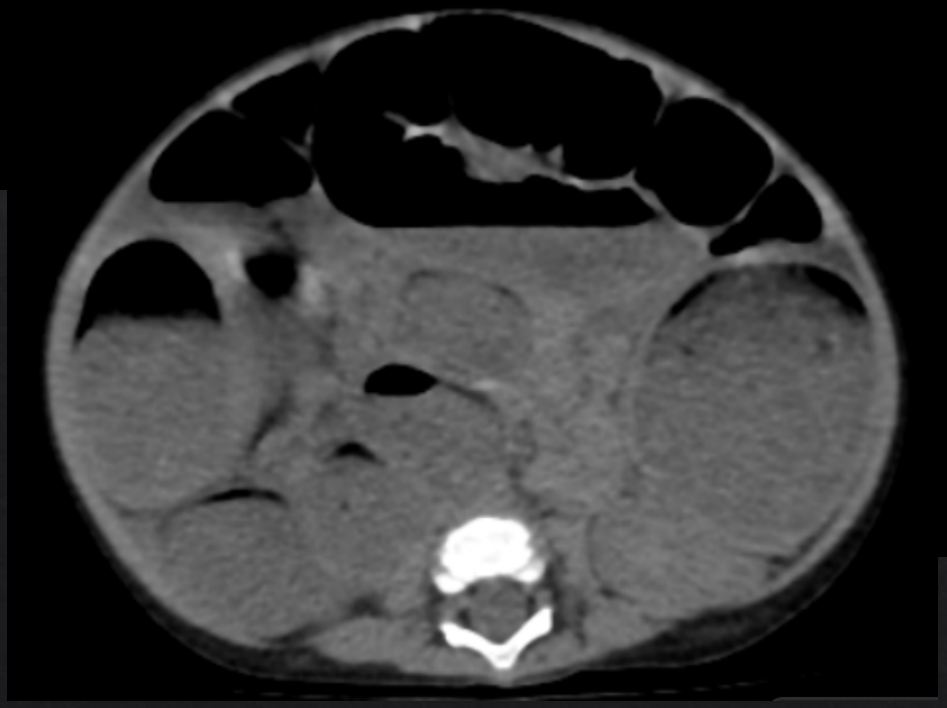




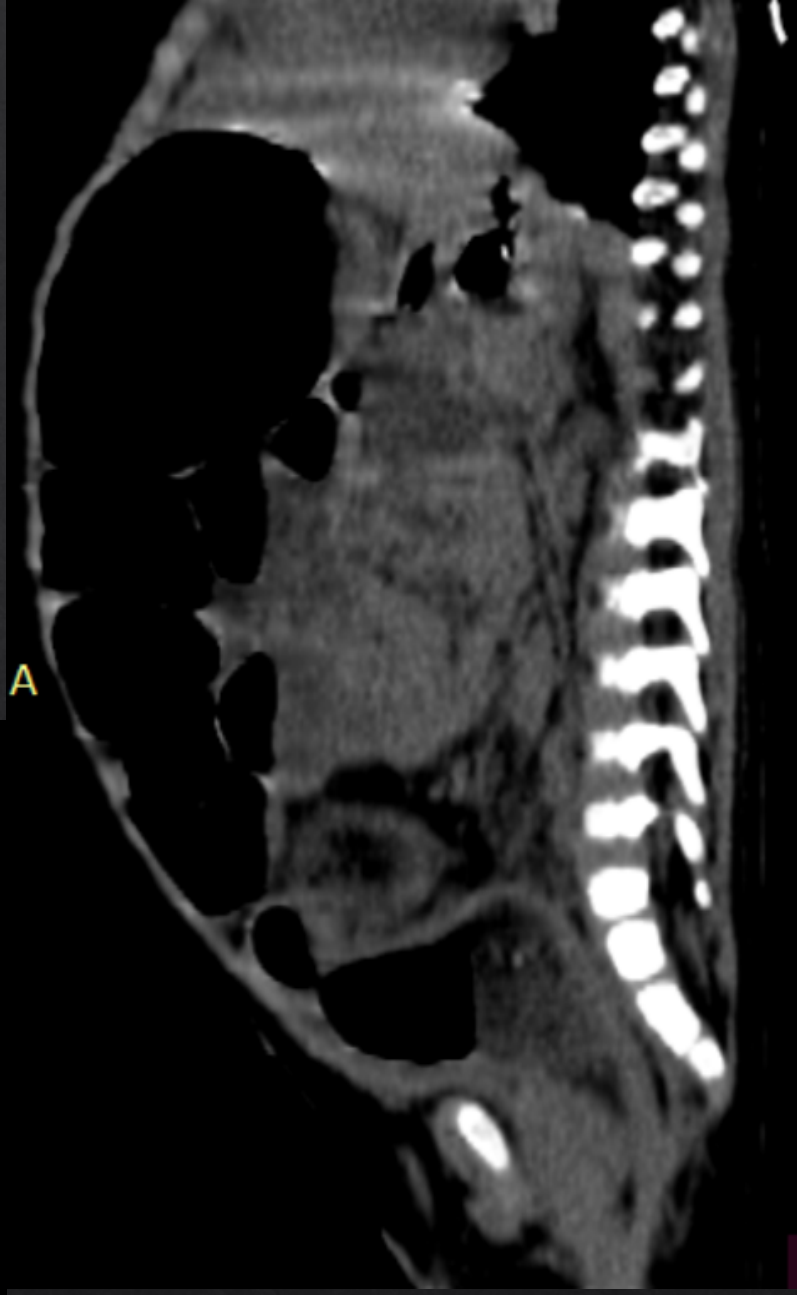


CORONAL

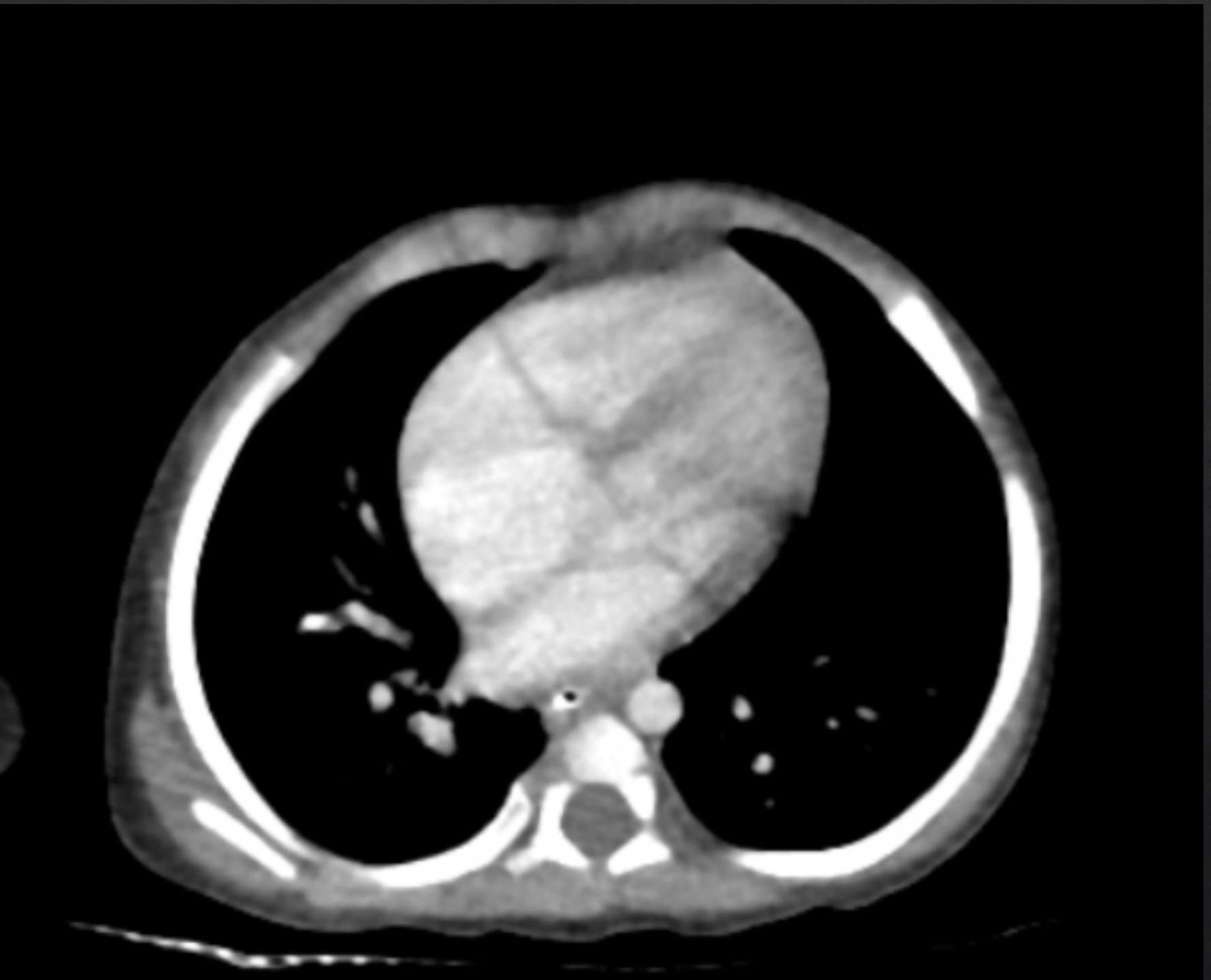
- E/o dilated large bowel loops (sigmoid, descending, transverse, ascending colon) caecum and ileal loops reaching a maximum calibre of 6cm at transverse colon with narrowing noted near the ano-rectal junction, s/o stenosis.
- Free fluid noted in the interbowel region.



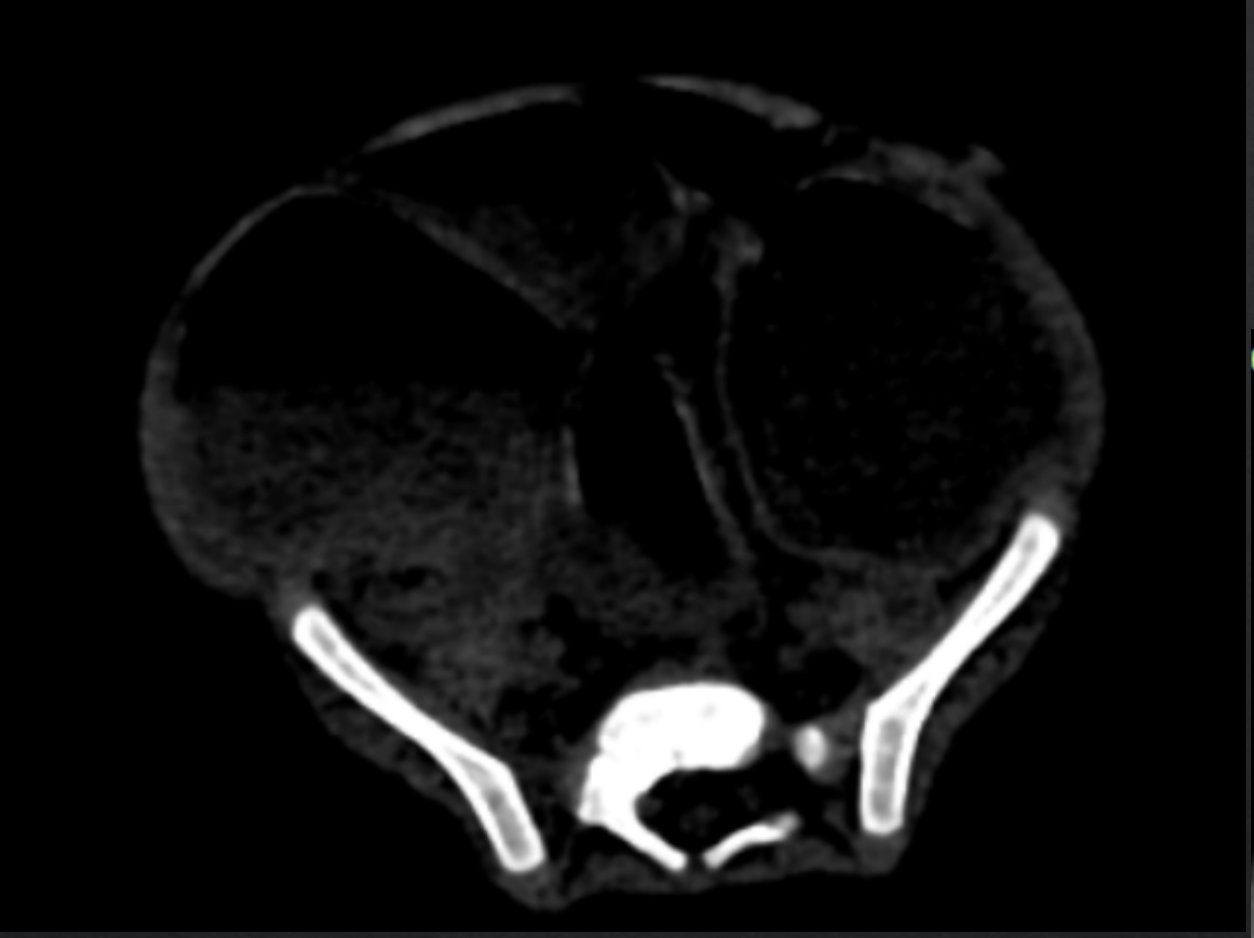
AXIAL



SAGGITAL

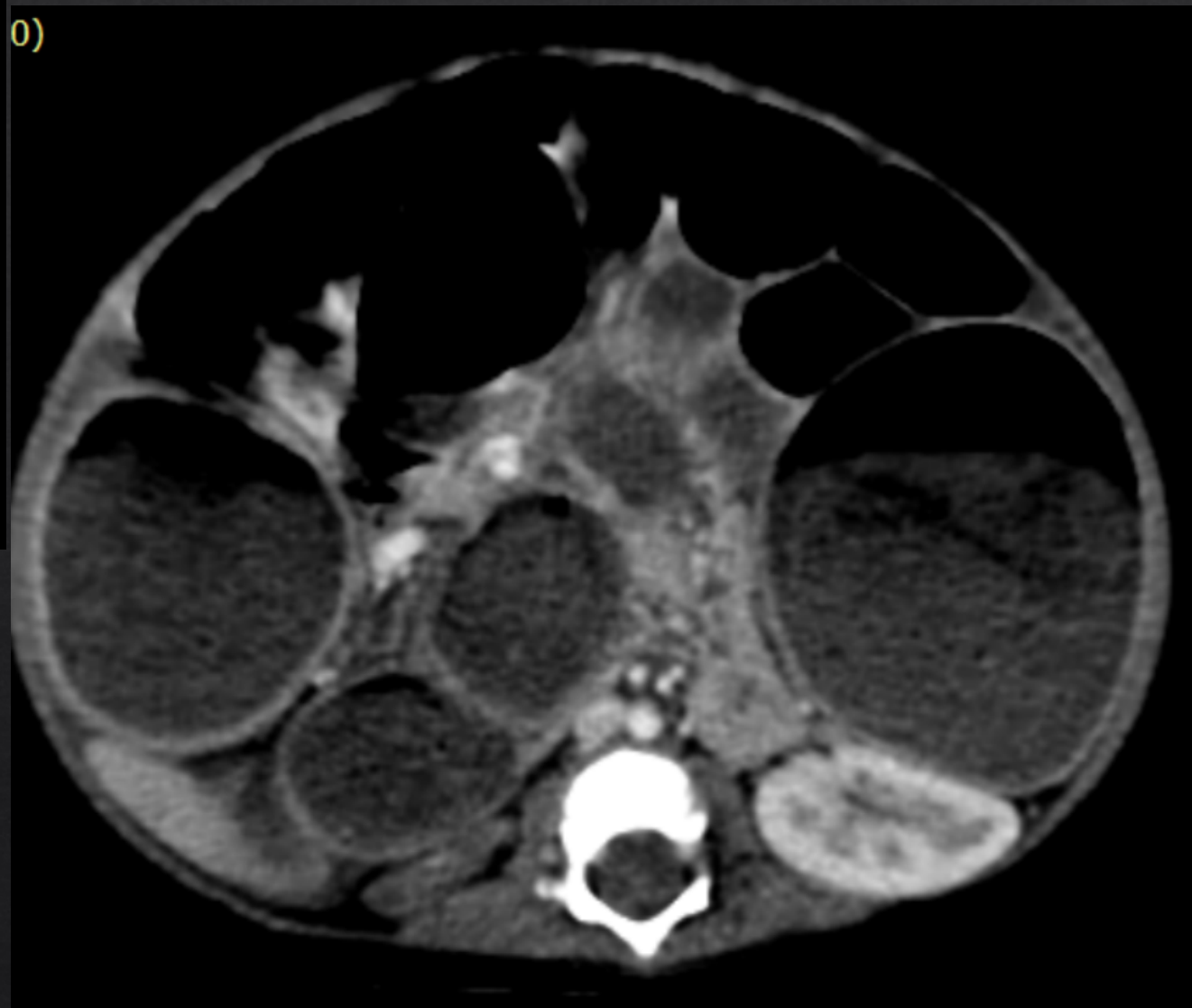


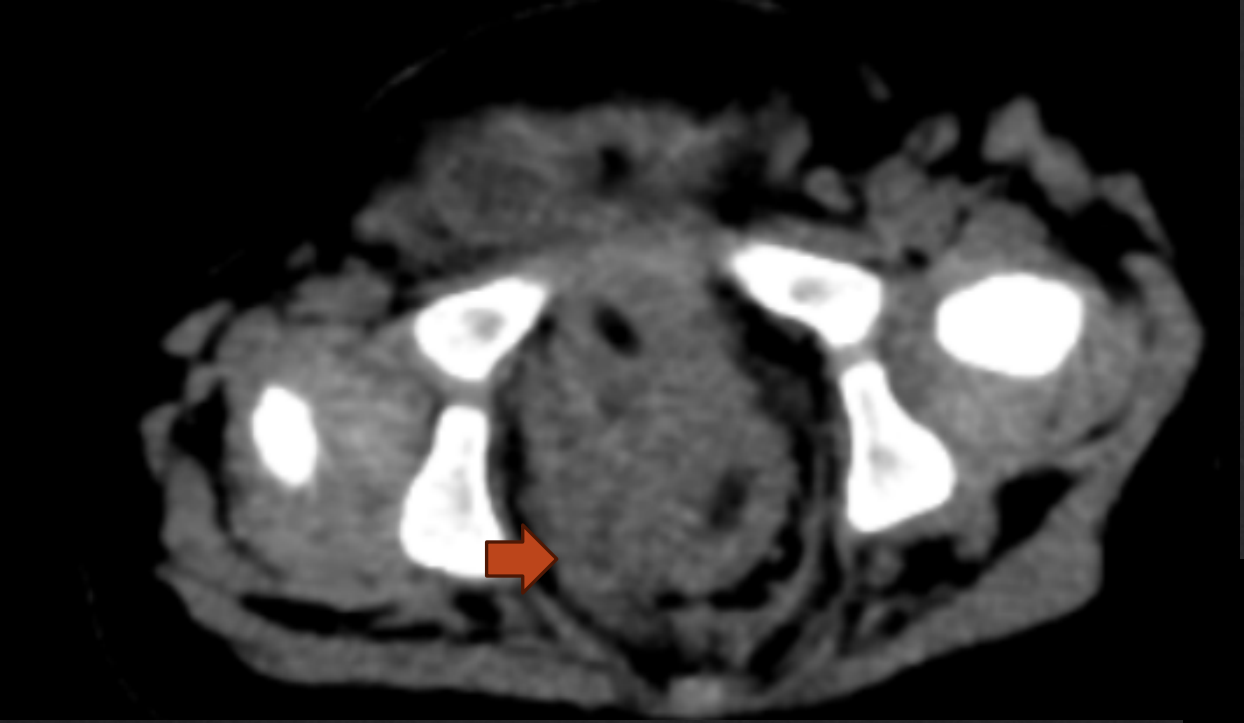
A cineclip of CECT Abdomen and pelvis in arterial phase in axial section showing dilated bowel loops till rectum. E/o atrophied and shrunken right kidney noted

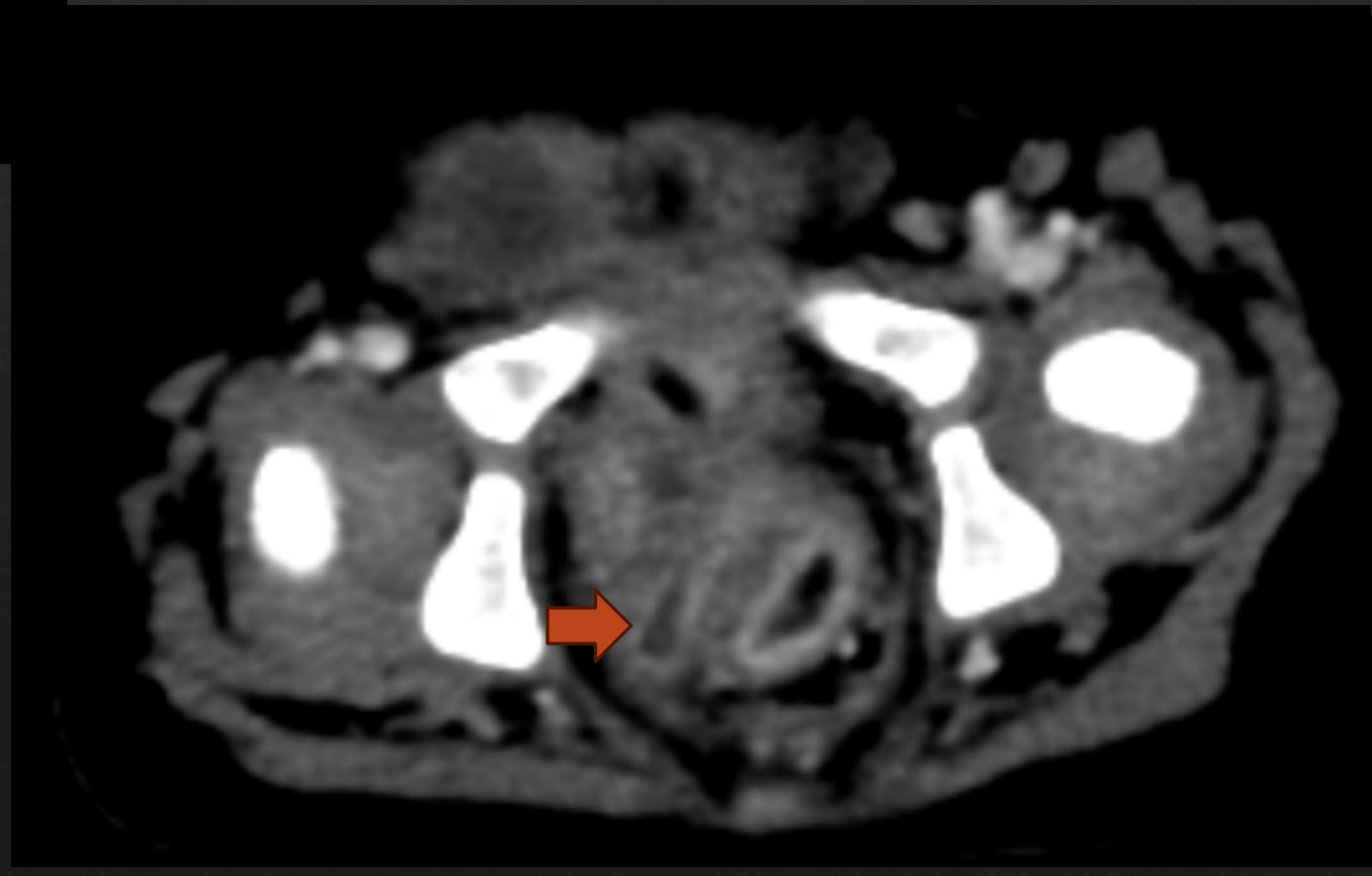


A defect in the left half of posterior element noted in L4 vertebra with no soft tissue protrusion through the defect.

shrunken and nonenhancing right kidney







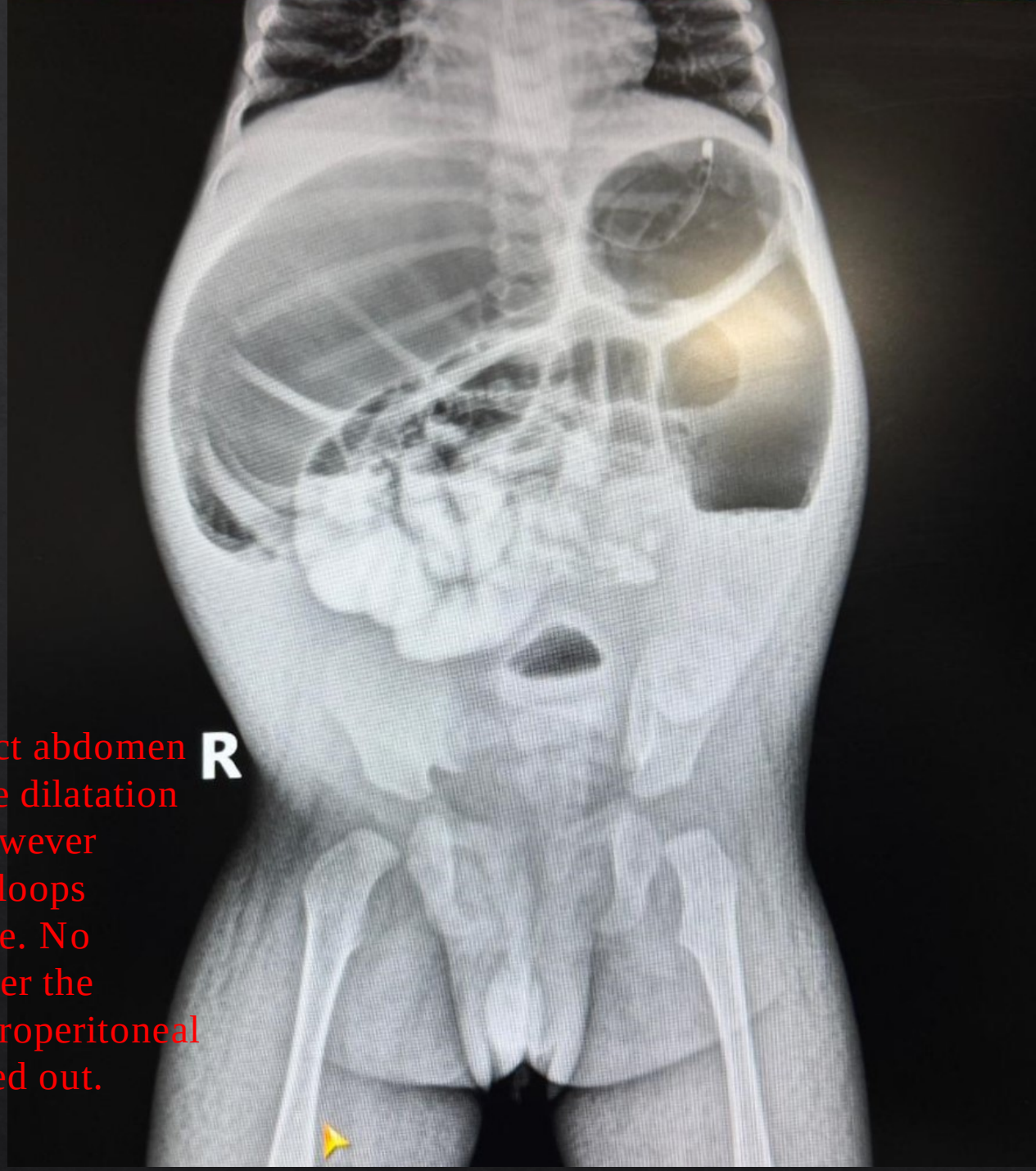
CECT abdomen & pelvis in axial section, plain and contrast, we can see there are 2 well defined hypodense lesions with enhancing walls noted in the perirectal region, however no obvious connection with the rectum noted.
There is mild fat stranding noted in the perirectal region.

IMPRESSION

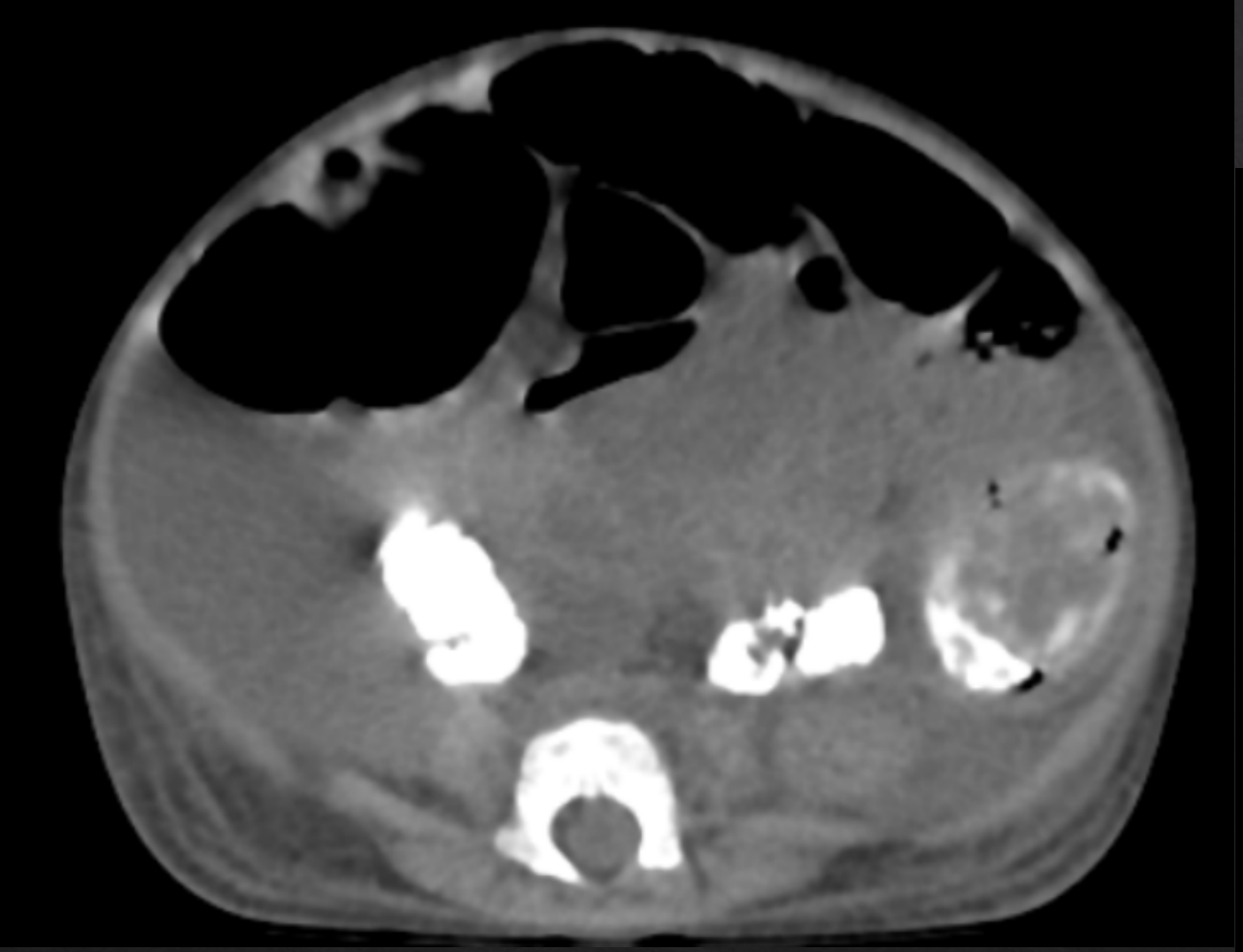
- Dilatation of rectum, sigmoid, descending, transverse, ascending colon, caecum and ileal loops, largest measuring 6cm at the level of transverse colon with narrowing at the level of rectum.
- Shrunken and non functioning right kidney
- Left half of posterior element is not made out at L4 vertebral level- s/o posterior arch anomaly

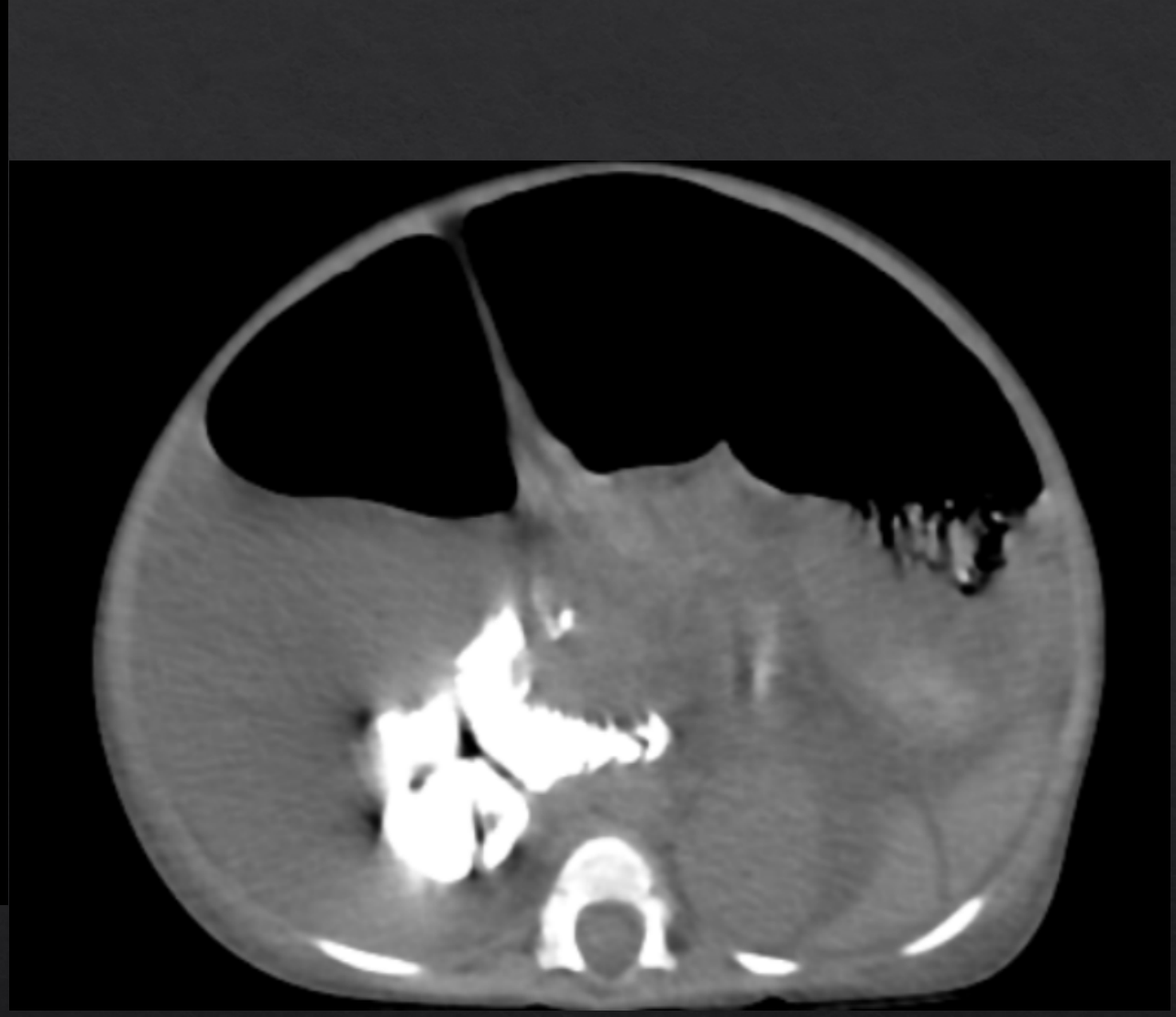
  ➔***VATER anomaly (3/5)***
- Mild ascites
- Well defined peripherally enhancing lesions noted adjacent to the anal canal, ***?collections*** *(Suggested NCCT pelvis with rectal contrast)*

- Post this the baby was taken to OT and the stenosis noted in the anorectal region was dilated using a dilator.
- After which the distension of the abdomen reduced and baby started passing flatus and feces. Serial abdominal radiographs were recorded.

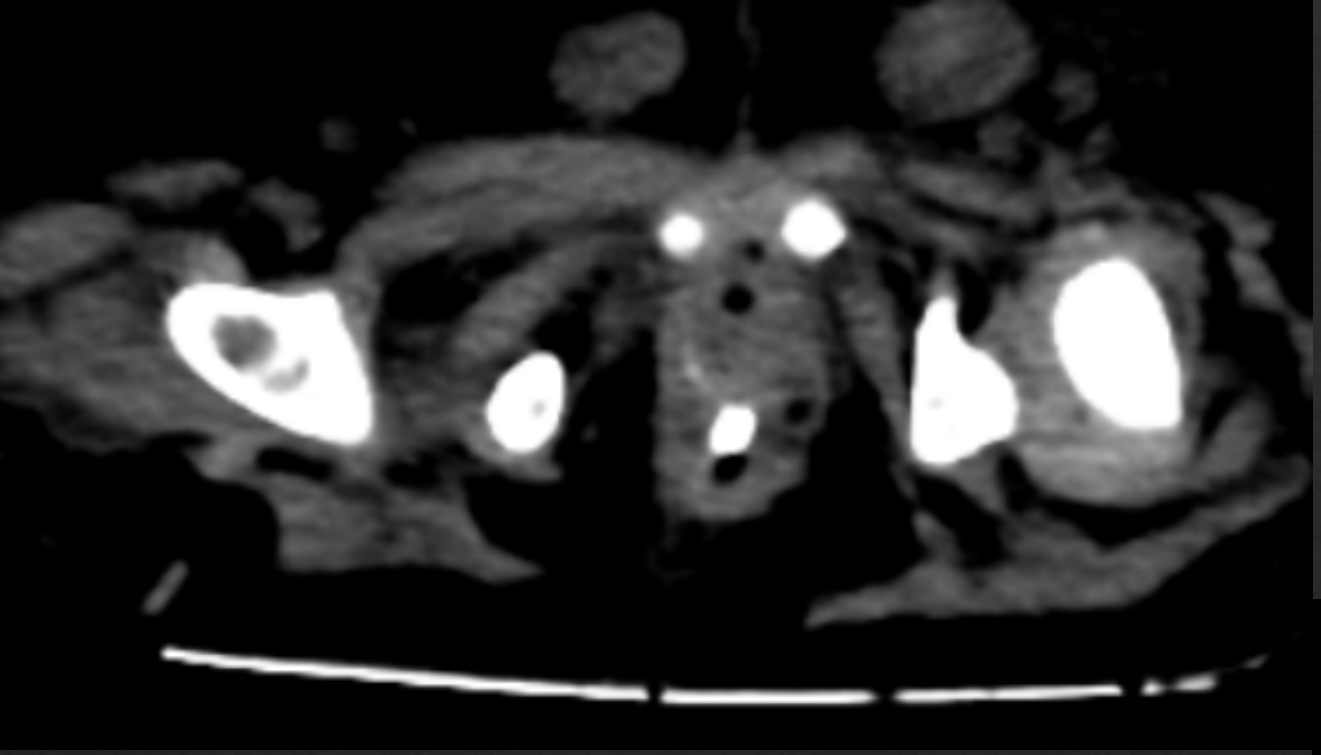


Plain radiograph of erect abdomen shows persistence in the dilatation of transverse colon. However visualized small bowel loops appear normal in calibre. No evidence of free air under the domes of diaphragm. Properitoneal fat planes appears bulged out.

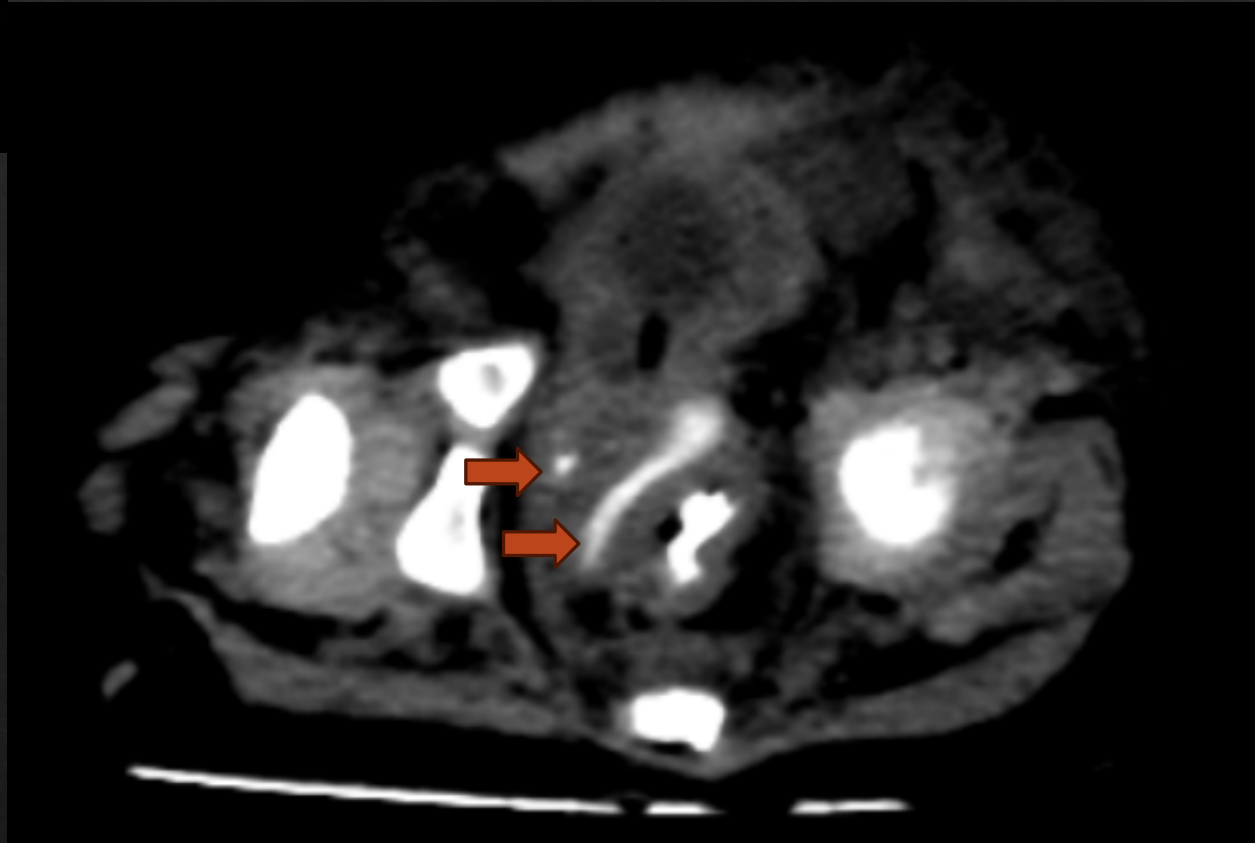




Plain CT with oral and rectal positive contrast in axial window shows long segment circumferential uniform wall thickening noted involving sigmoid, descending colon and splenic flexure. There is persistance in the dilatation of transverse colon which is seen proximal to the above mentioned wall thickening. There is gross increase in the amount of free fluid noted in interbowel region compared to the previous study.



The suspicious perirectal collections mentioned before show positive contrast uptake which is given rectally, confirming the connection with the rectum, s/o sinus tracts with perirectal fat stranding.



IMPRESSION

- The contrast seen in the rectum is seen opacifying the suspicious peri-rectal collections, s/o sinus tracts.
- Long segment bowel wall thickening and dilatation of bowel loop proximal to rectum, *however possibility of toxic megacolon could not be ruled out.*
- Gross increase in the amount of inter bowel free fluid.

THANK YOU