IMAGING OF SMALL INTESTINAL OBSTRUCTION- RARE AND UNCOMMON.

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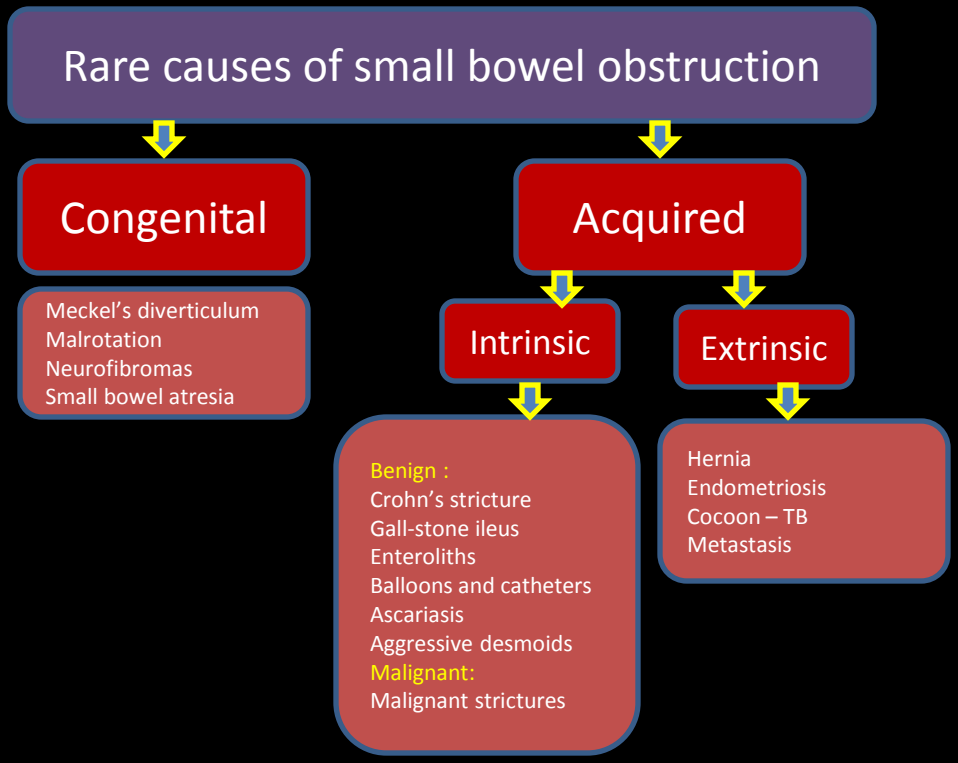
Disclaimer: We do not have any conflict of interest or financial gain to disclose

- The goal of this exhibit is to discuss the role of cross sectional imaging modalities in diagnosis and management of rare causes of small intestinal obstruction.
- The increased frequency of the condition and widespread use of diagnostic imaging have revealed uncommon causes of small intestinal obstruction.
- Target Audience: Radiologists, General Surgeons, Emergency Medicine Physicians and Residents.



Small bowel obstruction is common and represent 80% of causes of mechanical intestinal obstruction with mortality rate of 5%. Adhesions and incarcerated hernia represent more than 80% causes.

Uncommon causes include congenital as well as acquired. Due to advanced imaging techniques more and more causes of intestinal obstruction are identified.

Congenital causes of small bowel obstruction

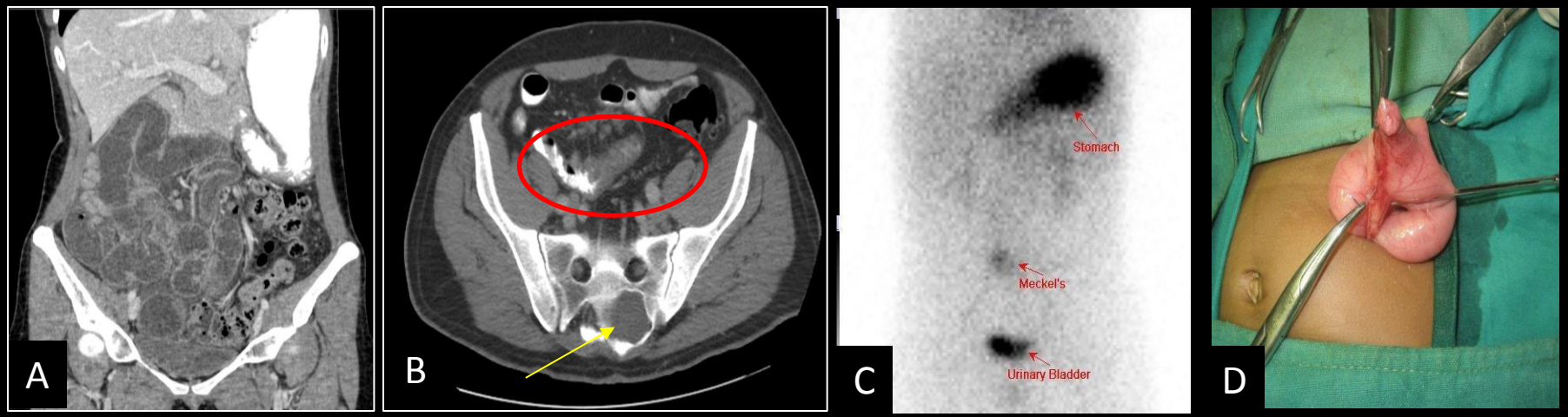


Figure A) Malrotation with volvulus. The small bowel loops are predominantly on the right, fluid filled and dilated. B) Neurofibroma of intestine in a patient with NF-1. Circumferential mural thickening of ileal loops (red oval outline) and also note widened sacral foramen in same patient (yellow arrow). C) Meckel's diverticulum. Tc99 Red blood cell scan showing uptake in Meckel's diverticulum in a patient who presented with acute obstruction due to diverticulitis. D) Post operative findings of Meckel's diverticulum.

Rare extrinsic causes of small bowel obstruction

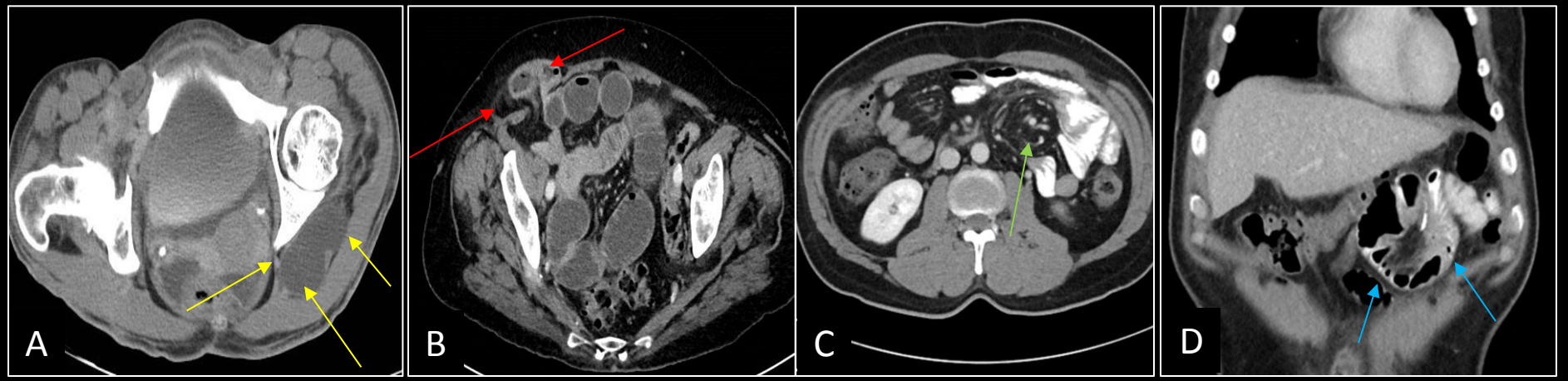
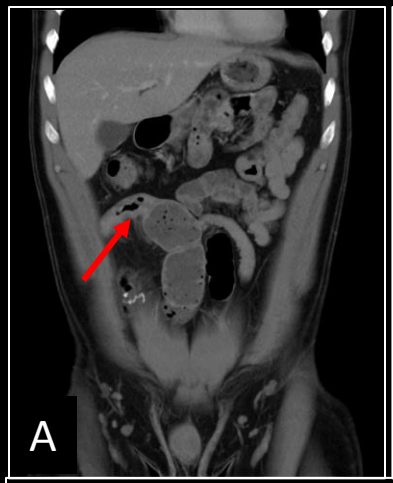
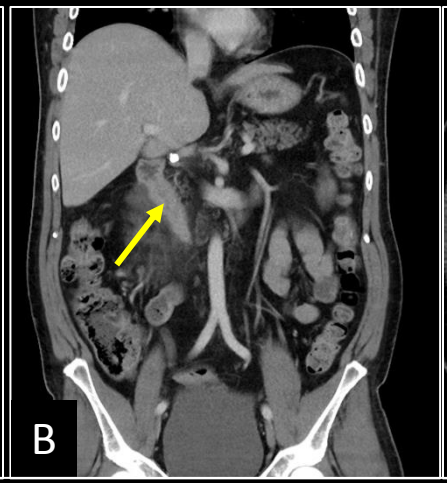
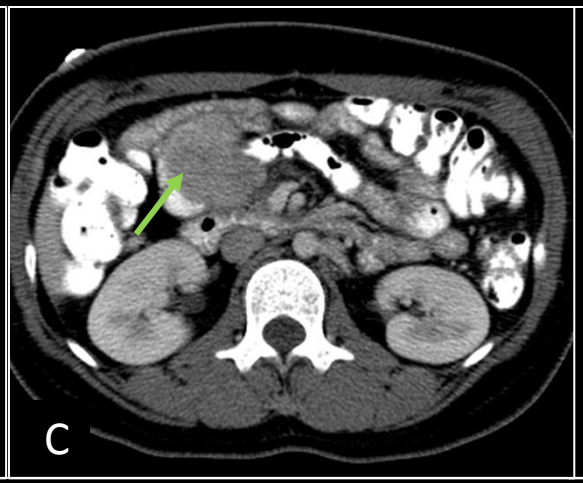


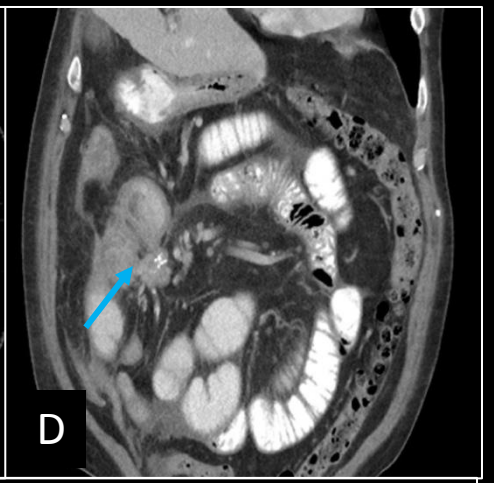
Figure A) Hernia of small bowel into sciatic foramen (yellow arrows) – a very rare cause of obstruction. B) Spigelian hernia – red arrows C) Internal trans mesenteric hernia with twisted mesentry (green arrow) and hernia of jejunal loops (blue arrows).

Rare intrinsic causes of small bowel obstruction

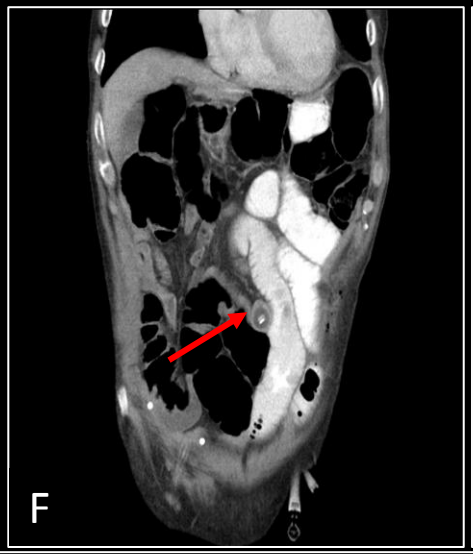








Benign and malignant strictures/ mass Figure A) Benign stricture of chron's disease. (red arrow) B) Aggressive mesenteric desmoid with fat infiltration and bowel wall stricture (yellow arrow) C) GIST causing subacute small bowel obstruction D) Carcinoid tumor. Spiculated calcified mass in mesentery causing obstruction due to desmoplastic reaction. (yellow arrow).



Intrinsic- intraluminal causes Figure E) Jejunal enterolith causing obstruction. F) Interesting case of jejunal obstruction from overinflated J tube balloon (red arrow). G) Gall-stone ileus. Migrated gall stone causing obstruction of ileal loop (yellow arrow). H) Same patient's prior CT abdomen confirms stone migrated from gall bladder (green arrow).

Conclusion:

Radiologists should be well-familiar with the imaging appearance of common and uncommon presentations of small intestinal obstruction. An algorithm based approach is necessary to evaluate small bowel obstruction.

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