EE-079.Small bowel obstruction (SBO) due to rare causes. The good, the bad and the ugly one.

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BACKGROUND:

Small bowel obstruction constitutes a rather frequent clinical entity at the emergency department. Beyond usual causes, such as adhesions, hernias, etc., SBO can be the result of numerous other more rare causes. Intussusception, vascular thrombosis, bezoars, Meckel's diverticulum consist some of infrequent causes of SBO. Radiologists role is crucial in the detection of SBO.

1) Is the small bowel obstructed?

- Presence of dilated proximal loops (> 2.5 cm from outer wall to outer wall)
- Collapsed or normal caliber of the distal loops.

2) The Transition Point (TP):

- Caliber change between the dilated proximal and collapsed distal SB loops:
 - Gradual (degree of prestenotic dilatation)
 - Abrupt (marked prestenotic dilatation)
 - Absent
- Retrograde approach from the rectum and proceeding proximally to the jejunum is advised
- Presence of the "small bowel feces" sign

5) The transition point always SHOWS THE CAUSE:

- Intrinsic bowel lesions are seen at the transition point as localized mural thickening.
- Extrinsic causes are adjacent to the transition point and usually have associated extraintestinal manifestations.
- Intraluminal causes manifest as endoluminal "foreign objects" with different imaging characteristics from those of the remaining enteric content.

When you want action—you want
THE PROFESSIONALS

Radiologists are
recruited to answer:

3) Complete versus partial SBO:

- Degree of distal collapse
- Proximal bowel dilatation
- Passage of oral contrast through the transition point into the collapsed bowel (partial SBO)

4) Presence of Strangulation?

- Circumferential mural thickening, increased mural attenuation,
- Different degrees of mural enhancement
- Mesenteric fat stranding and rarely, pneumatosis intestinalis, and portal venous gas.
- Curved multiplanar reformats along the closed loop axis help identify the pivot point and torsion of the mesenteric vessels.

Main rare entities lead to SBO

"Good" Extrinsic

- Hernias (Internal, obturator, Femoral)
- Meckel's Diverticulum
- Midgut volvulus
- Sclerosing Mesenteritis

"Bad" Intrinsic

- Intussusception
- Vascular thrombosis

"Ugly" Endoluminal

- Bezoar
- Foreign bodies
- Abscesses (although extrinsic)

CONCLUSION

- The pivotal role of the radiologist in SBO management is crucial; firstly, to establish the primary clinical suspicion and secondly to consult the surgeon whether it's an urgent to operative versus conservative management.
- CT remains the main gold standard in diagnosis of SBO.
- Radiologist must keep in mind that there are more scarce causes of SBO and it is crucial to be able to identify these entities, in order to consult the clinicians, whether there is a necessity for immediate intervention.