

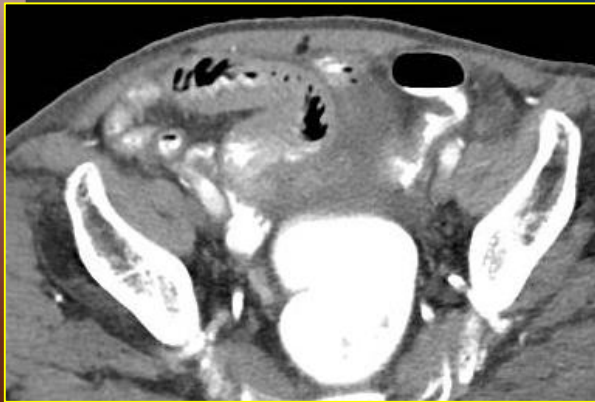
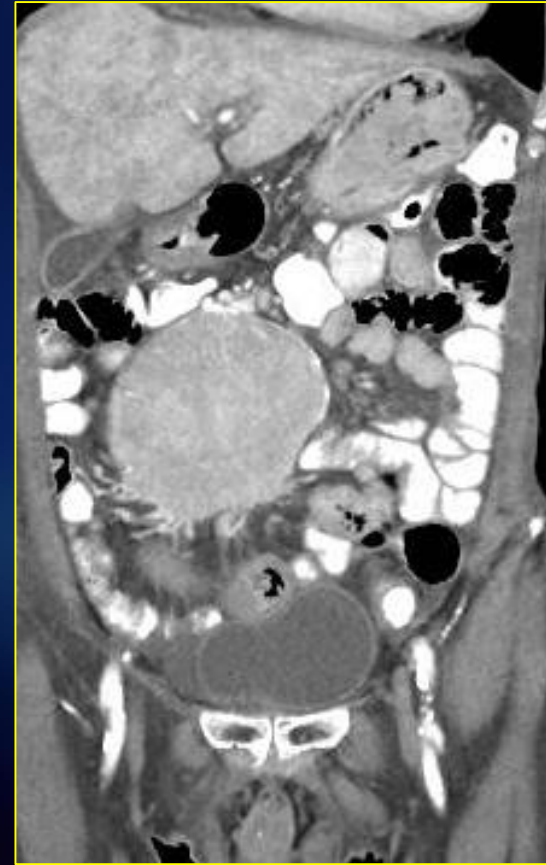
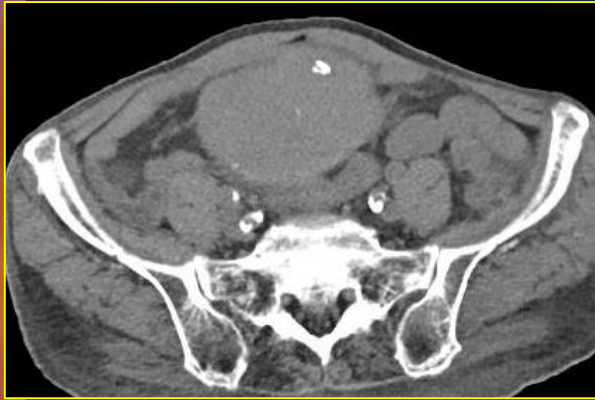
Case of the day : Case 3 - GI

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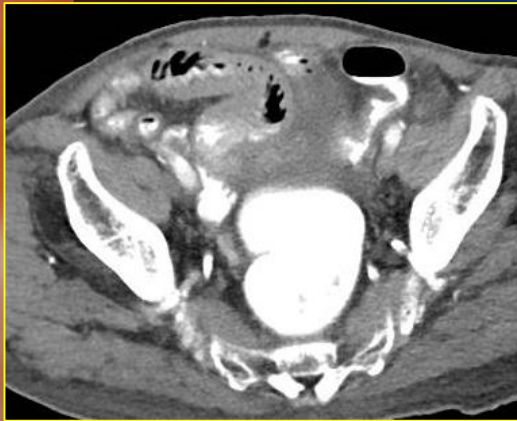
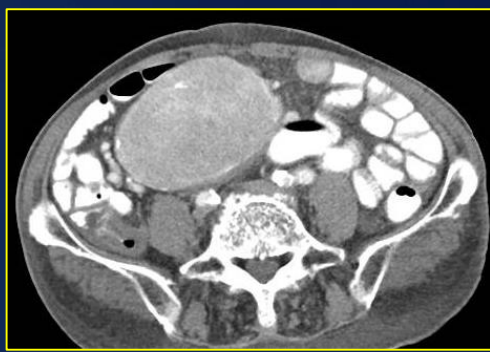
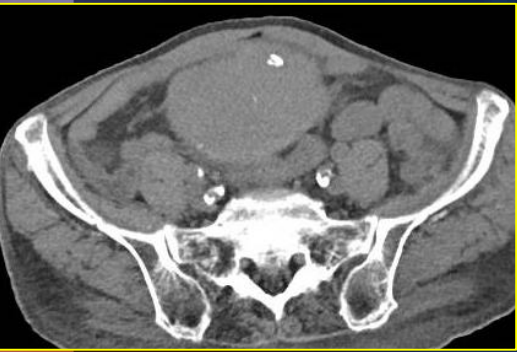


Case of the day: GI

A 75-year-old male presented with abdominal distension



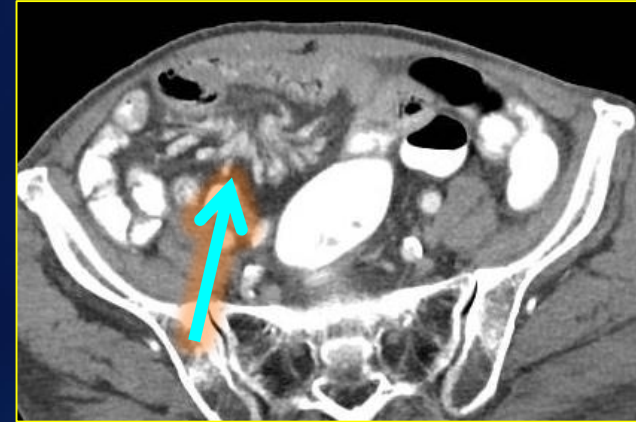
Case of the day: GI



What is the most likely diagnosis?

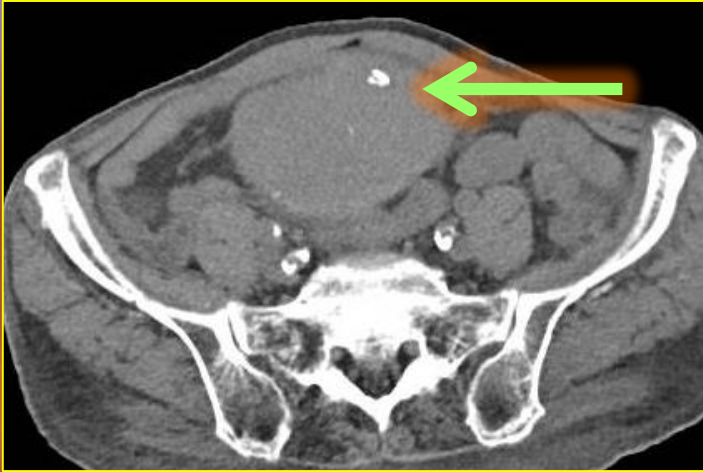
- A. Desmoid
- B. Neuroendocrine tumor**
- C. Castleman disease
- D. ileal GI stromal tumor
- E. Malignant paraganglioma

FINDINGS



- ✓ Enhancing soft tissue mass with linear bands radiating in the mesenteric fat. ←
- ✓ *“Spoke-wheel or sunburst appearance”* ←
- ✓ It represents the intense fibrotic proliferation and **desmoplastic** reaction the mesenteric fat and adjacent mesenteric vessel caused by the release of **serotonin** from primary tumor

FINDINGS



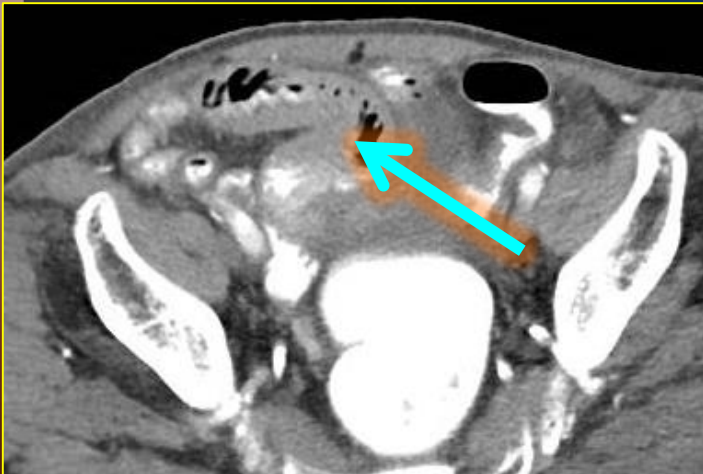
✓ **Calcifications** are visible in up to 70% of lesion at CT. ←

• Thickening of adjacent small bowel ileal loops cause by tumor infiltration.

✓ **Primary tumor** is often small appearing as hypervascular enhancing mass or regional ileal wall thickening. ←

Associated findings:

- Extensive mesenteric fibrosis
- Occlusion SMA, SMV with collateral vessel
- Bowel ischemia



Diagnosis

Mesenteric neuroendocrine tumor



Point of Learning: mesenteric neuroendocrine tumor (NET)

- Heterogeneous group of tumors from precursor endocrine cell population that shares antigens with nerve elements, giving rise to the term *neuroendocrine*.
- **Classified**
 - Well-differentiated tumors; slow-growing
 - Poorly differentiated tumors; (small or large cell neuroendocrine)
- Produce serotonin, growth factor (local fibrosis, resulting in **desmoplasia** of mesentery: small bowel obstruction, occlusion mesenteric vessel)



Mesenteric neuroendocrine tumor

- Midgut NET: second most common small bowel malignancy after adenocarcinoma
- Most common in the mid and **terminal ileum**.
- Usually **small** < 2 cm within submucosa.
- Up to 1/3 show multiple tumors, either the synchronous or submucosal metastatic spread
- Secondary mesenteric involvement (**dominant finding**): Mesenteric mass via direct spread to the mesentery.
- Most common used functional imaging study is **octreotide scintigraphy**, detection rate of up to 90% for primary tumors or metastases.



References

1. Sheth S, Horton KM, Garland MR. Mesenteric neoplasm: CT appearances of primary and secondary tumors and differential diagnosis. *RadioGraphics* 2003; 23: 457-473.

