

## ***Differentiating the black from the white: A multimodality pictorial review of small bowel neoplasms and their mimics.***

**Sameer Hanfi**, Alan Goldstein, Lacey McIntosh, Young Kim

European Congress of Radiology 2020 Abstract

### Learning Objectives:

1. Demonstrate the importance of different imaging modalities in detecting small bowel neoplasms and identifying their characteristic radiologic features.
2. Review the common mimics of small bowel neoplasms and their distinguishing features.

### Background:

Small bowel tumors are rare, comprising only 3% of all alimentary tract neoplasms. Patients are usually asymptomatic or have nonspecific symptoms like abdominal pain, nausea, vomiting, and/or weight loss. In more advanced stages, patients can present with more severe symptoms such as bowel obstruction, bowel perforation, and/or intestinal bleeding. Imaging remains the primary mode of diagnosing small bowel neoplasms due to the limitations of endoscopy. Even though there may be overlapping features, there are certain unique radiographic characteristics that favor the diagnosis of one neoplasm over another. Some features also help distinguish small bowel neoplasms from common mimics. Familiarity with the imaging of small bowel neoplasms can help in early detection, clinical work-up, and management.

### Findings and procedure details:

Anonymized images were retrieved from PACS, annotated, and displayed for educational review.

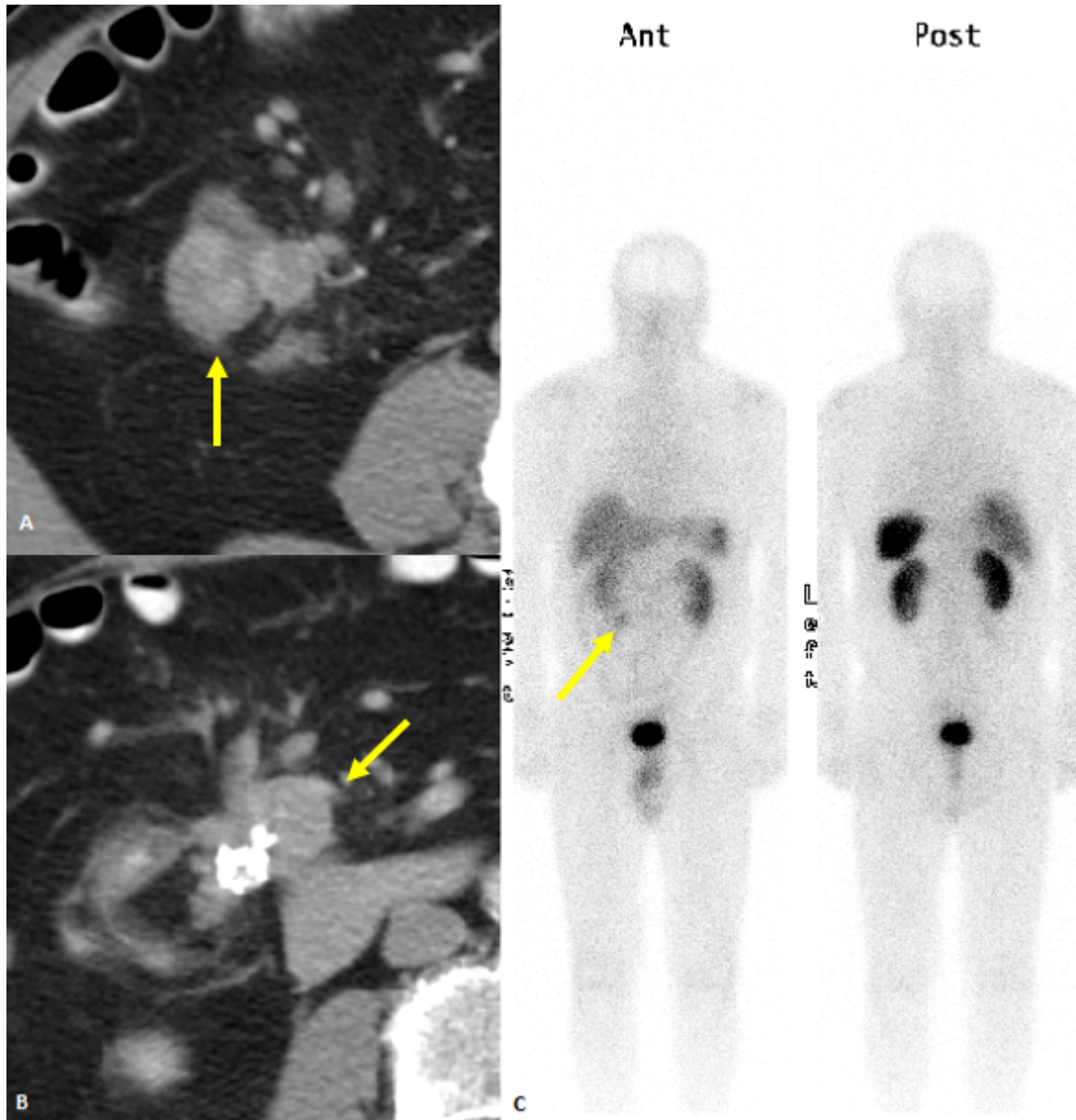


Figure 1. (A) Axial CT image demonstrates a heterogeneously enhancing mass (yellow arrow) in the distal ileum with surrounding desmoplastic reaction, found in a 53-year-old male with abdominal pain. (B) Axial CT image more superiorly in the same patient demonstrates a calcified mesenteric nodal metastasis with surrounding desmoplastic reaction (yellow arrow), typical of a well-differentiated neuroendocrine tumor (carcinoid). (C) Nuclear medicine octreotide scan shows increased radiotracer uptake in the right lower quadrant.

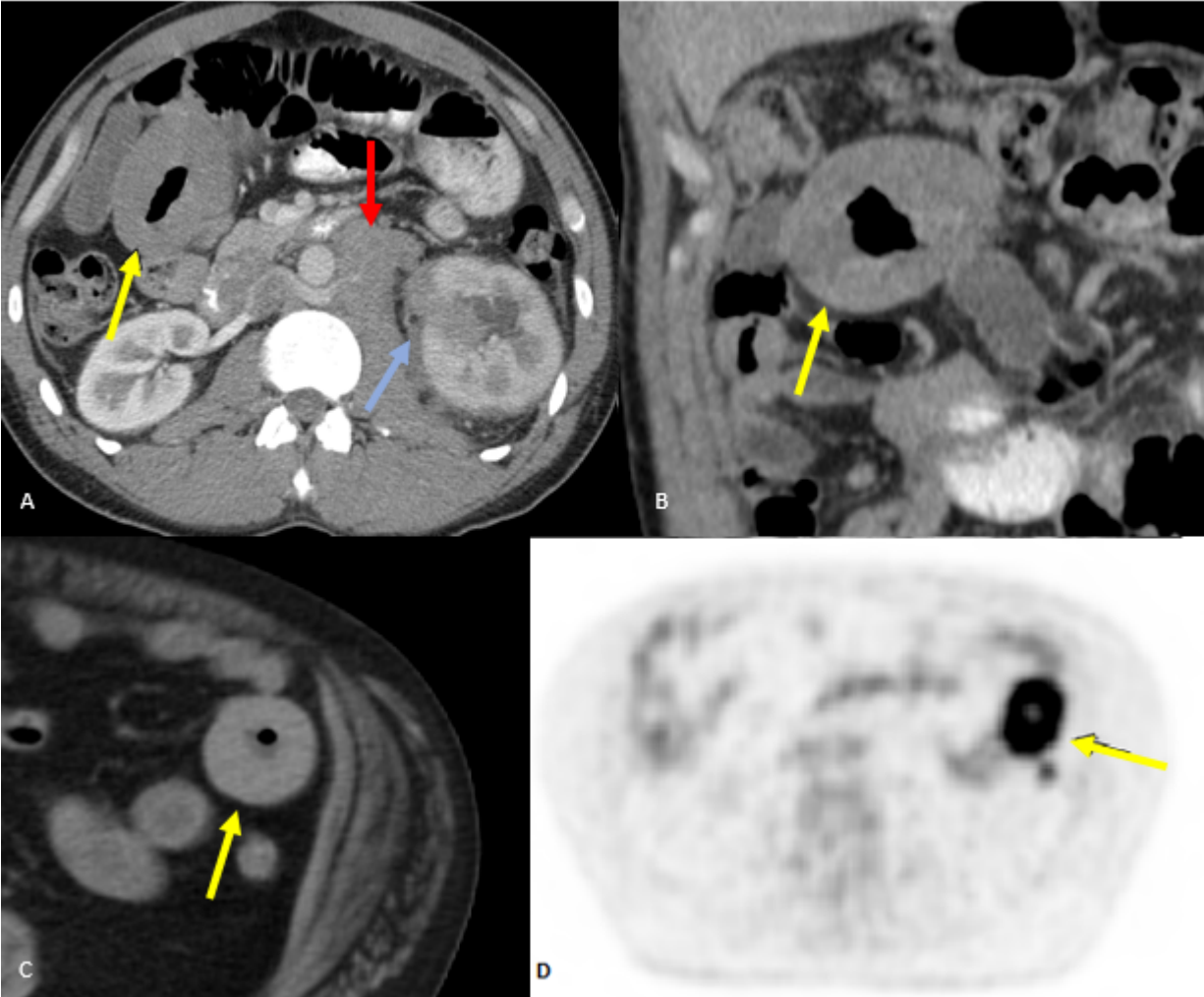


Figure 2. (A) Axial and (B) coronal CT images in a 40-year-old male, presenting with left flank pain, demonstrates circumferential wall thickening and dilatation of the small bowel in the right upper quadrant (yellow arrow) with proximal partial small bowel obstruction. There is also a confluent soft tissue mass in the left renal hilum (blue arrow) with associated retroperitoneal lymphadenopathy (red arrow). Pathology revealed Burkitt-like lymphoma. (C) Axial CT and (D) axial PET images in another patient, a 72-year-old male, demonstrating circumferential focal wall thickening at proximal jejunum with mild aneurysmal dilatation (yellow solid arrow). Corresponding PET-CT (D) demonstrates intense FDG activity in this region, consistent with a hypercellular mass. Pathology revealed follicular lymphoma.

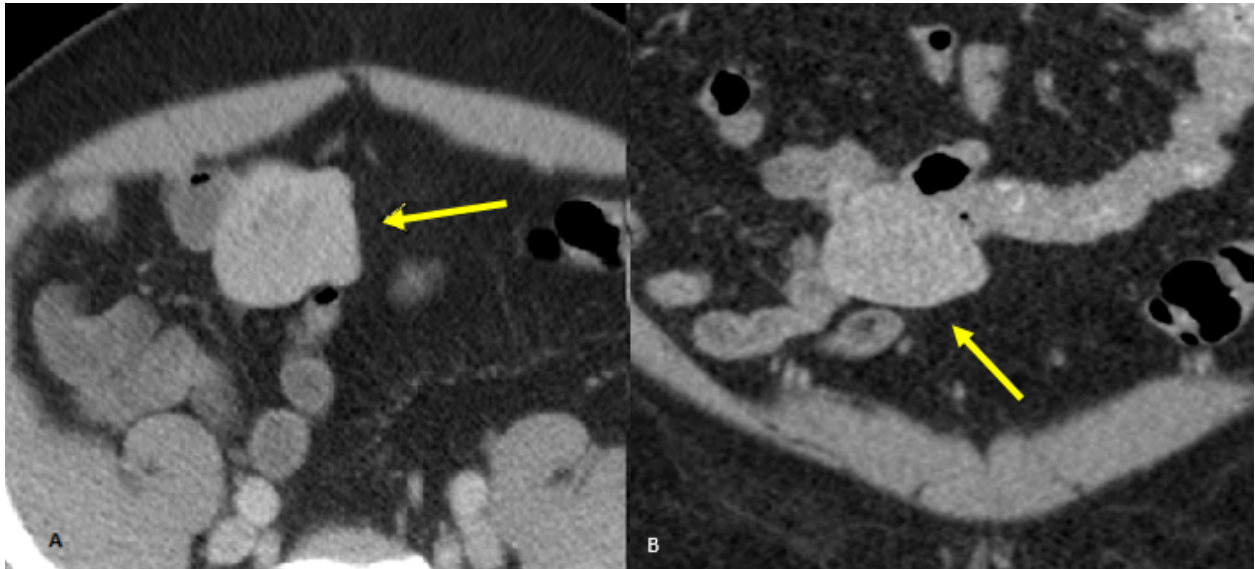


Figure 3. (A) Axial and (B) coronal CT images in a 53 year old male, presenting with upper GI bleeding, demonstrates a heterogeneously enhancing exophytic mass arising from the distal ileum with a clear delineation from the mesentery. Pathology revealed a gastrointestinal stromal tumor.



Figure 4. (A and B) Coronal and sagittal CT images in a 53-year-old patient, presenting to the emergency department with nausea and vomiting, demonstrating a moderately enhancing jejunal mass causing small bowel obstruction. This was found to be a small bowel adenocarcinoma. (C and D) Axial and coronal CT images in another patient, an 85-year-old male presenting with abdominal pain, demonstrate small bowel obstruction due to adhesions at a site of prior surgery with mass-like scar tissue in left lower quadrant mimicking a small bowel mass.