AMSER Case of the Month
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74-year-old female with epigastric pain and nausea

Nicholas John Mynarski (MS4)
Geisinger Commonwealth School of Medicine

Lindsey Negrete, MD
Stanford University
Patient Presentation

- **HPI:** A 74 y/o woman presented to the emergency room with left chest and epigastric pain with associated nausea.

- **PMH:** Celiac disease, GERD, microscopic colitis, and esophageal spasm

- **Social History:** 4 pack year smoking history. Patient drinks approximately 4-5 glasses of wine per week

- No pertinent surgical or family history. No known allergies.
Patient Presentation

- **ROS**: Minor constipation, no abdominal pain, no vomiting, no diarrhea, no blood in stool, no fevers, no chills, no night sweats, no palpitations, no significant changes in weight.


- **Lab Values**: No significant lab findings.
What Imaging Should We Order?
Epigastric Pain ACR Appropriateness Criteria

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Appropriateness Category</th>
<th>Relative Radiation Level</th>
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</thead>
<tbody>
<tr>
<td>Fluoroscopy biphasic esophagram</td>
<td>Usually Appropriate</td>
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<tr>
<td>Fluoroscopy upper GI series</td>
<td>Usually Appropriate</td>
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<tr>
<td>Fluoroscopy single contrast esophagram</td>
<td>May Be Appropriate</td>
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<tr>
<td>CT abdomen and pelvis with IV contrast</td>
<td>May Be Appropriate</td>
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<tr>
<td>CT abdomen and pelvis without IV contrast</td>
<td>May Be Appropriate</td>
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<tr>
<td>CT abdomen with IV contrast</td>
<td>May Be Appropriate (Disagreement)</td>
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<tr>
<td>MRI abdomen without and with IV contrast</td>
<td>Usually Not Appropriate</td>
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<td>MRI abdomen without and with IV contrast with MRCP</td>
<td>Usually Not Appropriate</td>
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<tr>
<td>MRI abdomen without IV contrast</td>
<td>Usually Not Appropriate</td>
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<tr>
<td>MRI abdomen without IV contrast with MRCP</td>
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<tr>
<td>CT abdomen without IV contrast</td>
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<tr>
<td>CT abdomen and pelvis without and with IV contrast</td>
<td>Usually Not Appropriate</td>
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<tr>
<td>CT abdomen with IV contrast multiphase</td>
<td>Usually Not Appropriate</td>
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<tr>
<td>CT abdomen without and with IV contrast</td>
<td>Usually Not Appropriate</td>
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<tr>
<td>FDG-PET/CT skull base to mid-thigh</td>
<td>Usually Not Appropriate</td>
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This imaging modality was ordered by the ER physician.
Findings: Unlabeled Contrast Enhanced CT
Findings: Labeled Contrast Enhanced CT

Homogenously enhancing submucosal mass measuring 3.5 x 3.3 cm in the first / second portion of the duodenum. The lumen of the bowel is narrowed but there is no associated gastric outlet obstruction.
Follow up + Pathology Findings

• The patient’s original symptomatology of epigastric pain and nausea was attributed to her PMH of esophageal spasm.

• After discovering the incidental mass, the patient underwent endoscopic ultrasound (EUS) with biopsy. Pathology results demonstrated:
  • Well-circumscribed spindled cell neoplasm with eosinophilic cytoplasm and elongated cigar shaped nuclei
  • No miotic activity or necrosis; some nuclear atypia
  • Desmin and ActM positive. CD117 and HMB45 negative
    • Supports smooth muscle cell differentiation
Final Diagnosis:

Duodenal Leiomyoma
Discussion: Background

• The small intestine is the 2\textsuperscript{nd} most common site for smooth muscle tumors.
  • These tumors are most commonly found in the jejunum, followed by the ileum, and the duodenum.

• Accounting for over 80 percent of cases, the most common type of intestinal mesenchymal tumors are gastrointestinal stromal tumors (GIST).
  • The remaining, far less common, group of stromal tumors include lipomas, liposarcomas, leiomyosarcomas, and leiomyomas.
Discussion: Clinical Presentation and Treatment

• Intestinal mesenchymal tumors are generally large at diagnosis and their presentation is generally late.
  • Associated symptoms include bleeding into the GI tract, abdominal pain, weight loss, perforation, obstruction, or a palpable mass.

• Treatment for most GISTS, leiomyomas, and leiomyosarcomas of the small bowel consists of en block segmental resection with tumor-free margins.
  • Pancreaticoduodenectomy is reserved for lesions that are not amenable to local resection.
Discussion: Patient’s Course

• The patient underwent robotic distal gastrectomy with Billroth II configuration of gastrojejunostomy.

• After some minor post-op complications, including ileus, the patient was discharged from the hospital.

• On follow-up, the patient noted no pain, erythema or drainage from the incisional sites. The patient tolerated her usual diet and reported no other concerns or symptoms at that time.
References:

