AMSER Case of the Month
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Bouverete Syndrome

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Patient Presentation

• 77y/o M with h/o CAD with MI s/p PCI (2019) CHF with LV dysfunction and TIIDM

• Presents with Intermittent abdominal pain and N/V x 2-3 weeks. Worse with food. Vomited 5-8 times. No blood. 8-10lb weight loss over 1 week.

• Vital:
  • BP 153/77 mmHg, HR 64, RR 18, Temp 36.6

• Physical:
  • Generalized abdominal pain, no guarding or rebound tenderness
Pertinent Labs

- CBC: WNL
- CMP: WNL
What Imaging Should We Order?
Select the applicable 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>CT abdomen and pelvis with IV contrast</td>
<td>Usually Appropriate</td>
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<tr>
<td>CT abdomen and pelvis without IV contrast</td>
<td>Usually Appropriate</td>
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<tr>
<td>MRI abdomen and pelvis without and with IV contrast</td>
<td>Usually Appropriate</td>
<td>⬜️</td>
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<tr>
<td>US abdomen</td>
<td>May Be Appropriate</td>
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<tr>
<td>Radiography abdomen</td>
<td>May Be 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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<tr>
<td>WBC scan abdomen and pelvis</td>
<td>Usually Not Appropriate</td>
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<tr>
<td>Nuclear medicine scan gallbladder</td>
<td>Usually Not Appropriate</td>
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<tr>
<td>Fluoroscopy upper GI series with small bowel follow-through</td>
<td>Usually Not Appropriate</td>
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</table>

This imaging modality was ordered by the ER physician.
Findings (unlabeled)
Findings: (labeled)

- Distended stomach from outlet obstruction
- Large stone in duodenum
- Inflamed gallbladder
- Cholecystoduodenal fistula
Findings: (labeled)

- Inflamed gallbladder
- Large Stone in duodenum
- Distended stomach from outlet obstruction
Postop Findings (unlabeled)
Postop Findings: (labeled)

- Decreased inflammation with pneumobilia
- Decreased inflammation of the duodenum post stone removal
Final Dx:

Bouverete Syndrome
Case Discussion (1-3 slides)

Management:

• Gastrostomy was performed with 5cm gallstone removal from the pyloric end of the stomach. Gastric and gallbladder lacerations were repaired with resolution of the fistula. This resulted in decompression of the stomach and proximal duodenum. Inflammation of the gallbladder and proximal duodenum was resolved as seen in the postop images.
Case Discussion (1-3 slides)

• Bouveret Syndrome is a rare complication of cholelithiasis that presents with signs of gastric outlet obstruction secondary to gallstone impaction of the pylorus

• It can be considered as gallstone ileus of the proximal duodenum due to an acquired fistula between the gallbladder and duodenum (though, can involve the pylorus as in this case)

• Clinical presentation:
  • Occurs more commonly in elderly women >65 years of age
  • s/s include nausea, vomiting, and epigastric pain
  • May present along with pancreatitis
Case Discussion (1-3 slides)

- Imaging:
  - May show cholecystenteric fistula
  - May show bowel obstruction, pneumobilia & ectopic gallstone

- Treatment:
  - Mortality rate is as high as 12-33%, so early detection is important
  - Endoscopic treatment typically preferred over surgery and may involve mechanical, electrohydraulic and laser lithotripsy
References:


