Endoscopic Pancreatic Pseudo-cyst Drainage

Judith Dorsam RN
Lehigh Valley Health Network, Judith.Dorsam@lvhn.org

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Endoscopic Pancreatic Pseudocyst Drainage

GI/Pulmonary Endoscopy Unit
Lehigh Valley Health Network, Allentown, PA

Background / Problem
- Incidence of acute pancreatitis in the United States is 32-44 new cases per 1000 population. It is also the most common cause of GI related hospitalizations.
- Pancreatic pseudocysts are a common complication of pancreatitis. Other complications include necrosis, ARDS (adult respiratory distress syndrome), multi-organ failure and chronic pancreatitis.

Management
Treatment of pseudocysts, if the patient is experiencing pain include:
- Surgery
- ERCP - transpapillary approach
- EUS (Endoscopic Ultrasound) - Endoscopic Pancreatic Pseudocyst Drainage (transmural approach)

Exclusions and Complications

<table>
<thead>
<tr>
<th>Exclusions</th>
<th>Potential Complications</th>
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</thead>
<tbody>
<tr>
<td>Immature cyst wall</td>
<td>Bleeding</td>
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<tr>
<td>Cyst wall greater than 1 cm</td>
<td>Perforation</td>
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<tr>
<td>Large amount of necrosis</td>
<td>Secondary infection</td>
</tr>
<tr>
<td>Intervening blood vessels</td>
<td>Stent migration into pseudocyst cavity</td>
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<tr>
<td>Mucinous lesions</td>
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</tbody>
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Exclusions:
- Pancreatitis with subsequent development of a pseudocyst
- Abdominal pain related to pseudocyst

Success Rate
- Chronic pancreatitis – over 90%
- Acute pancreatitis – over 70% (once acute episode is resolved)

Technique
Using therapeutic EUS scope, cyst is identified and punctured with a 19 gauge fine needle aspiration needle (FNA)
- 450 guide wire is advanced through needle until multiple loops are visualized under xray
- FNA needle is removed and needle knife is advanced to create a fistula
- Needle knife is removed and a hydrostatic balloon is used to dilate the tract
- 2 – 10 French/4 cm double pigtail stents are placed (allowing drainage not only through each stent but also through the area between the stents)

Potential Complications:
- Bleeding
- Perforation
- Secondary infection
- Stent migration into pseudocyst cavity

Advantages of Endoscopic Pancreatic Pseudocyst Drainage
- Less invasive (no external drains)
- Less expensive alternative to surgical treatment
- Shorter recovery time/hospital stay

Follow-up
- CT scan in one month
- Postop resolution
- If pseudocyst is resolved, stents can be removed
- Then follow as needed

References: