Endoscopic Pancreatic Pseudo-cyst Drainage

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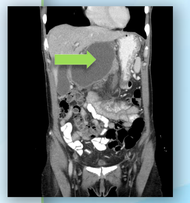
Background / Problem

- 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)

Prerequisites

- Pancreatitis with subsequent development of a pseudocyst
- Abdominal pain related to pseudocyst

Exclusions and Complications

Exclusions:

- Immature cyst wall
- Cyst wall greater than 1 cm
- Large amount of necrosis
- Intervening blood vessels
- Mucinous lesions

Potential Complications:

- Bleeding
- Perforation
- Secondary infection
- Stent migration into pseudocyst cavity

References:

1. Douglas A. Howell MD, Raj J. Shah, "Endoscopic Management of pseudocysts of the pancreas: Efficacy and complications, Up to Date, 2/25/2014.
2. Peter Lee, Tyler Stevens, "Acute Pancreatitis", Cleveland Clinic for Continuing Education, 2/2014.
3. L. Weckman, M. L. Kylanpaa, P. Puolakkainen, J. Halttunen, "Endoscopic treatment of pancreatic pseudocysts", Surgical Endoscopy, 1/19/06.
4. Andrew I. Samuelson MD, Raj J. Shah, "Endoscopic management of pancreatic pseudocysts", Gastrointestinal Clinics of North America, 2012.

Advantages of Endoscopic Pancreatic Pseudocyst Drainage

- Less invasive (no external drains)
- Less expensive alternative to surgical treatment
- Shorter recovery time/hospital stay

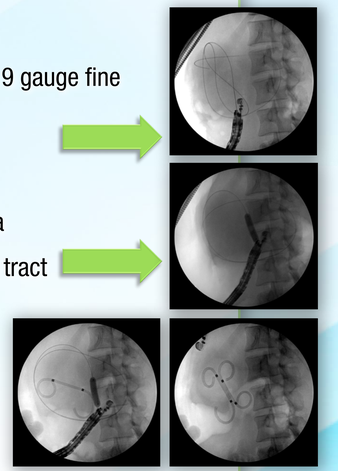
Success Rate

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

Technique

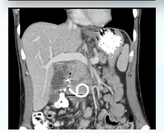
Utilizing fluoroscopy and ultrasonography:

- 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)



Follow-up

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



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