THE ROLE OF SURGERY IN ACUTE PANCREATITIS

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DISCUSSION POINTS

- Case scenario
- Revised Atlanta Classification 2012
- Severity assessment of pancreatitis
- Step up approach (percutaneous / endoscopic) for severe necrotising pancreatitis
- Role of cholecystectomy for mild – moderate pancreatitis
- Role of cholecystectomy for recurrent idiopathic pancreatitis
- Role of ERCP in acute pancreatitis

https://medlineplus.gov/pancreatitis.html
MR F

Transferred from Southland to Dunedin ICU with severe pancreatitis / cholangitis

- Intubated
- Emergency ERCP / stent
- Good recovery
- Not suitable for interval ERCP (very large periampullary diverticulum)
- 5 weeks post admission cholecystectomy and bile duct exploration
1. Acute Pancreatitis

- Acute interstitial pancreatitis
- Acute necrotizing pancreatitis
  - Parenchymal necrosis alone
    - Parenchymal and periparenchymal
    - Periparenchymal alone

2. Pancreatic / Peripancreatic Collections

- Acute peripancreatic fluid collection (APFC)
- Pancreatic pseudocyst
- Acute necrotic collection (ANC) complicates acute necrotising pancreatitis (lacks well defined wall)
  - Walled off necrosis (WON)
NATURAL HISTORY

• APFC: 70% resolve within 2 weeks, 5-10% become pseudocysts
• Pseudocysts usually resolve
• ANC evolves into WON over 4 weeks
• WON: about 50% become infected
INTERVENTION STRATEGY

• A sterile acute necrotic collection rarely requires intervention
• Infected necrotic collection escalates to step up percutaneous / endoscopic drainage
• Asymptomatic WON no intervention
• Symptomatic WON intervention late in course
• Infected WON intervention is mandatory
<table>
<thead>
<tr>
<th>Severity</th>
<th>Description</th>
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<tbody>
<tr>
<td>Mild</td>
<td>• Absence of organ failure and systemic complication</td>
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<tr>
<td>Moderate</td>
<td>• Transient organ failure &lt; 48 hours and / or systemic complications without persistent organ failure</td>
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<tr>
<td>Severe</td>
<td>• Persistent organ failure of one or more organ</td>
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• 25 - 30% of severe pancreatitis patients develop infected necrosis

• Mortality with necrotising pancreatitis 15%

• Mortality in infected necrosis 30 -39%
• March 2013 to May 2016
• Prospective analysis
• 602 patients with mild pancreatitis
• 74/602 (12.3%) progressed to moderate or severe
RISK FACTORS FOR PROGRESSION

• BMI > 25
• APACHE II score > 5
• Blood glucose > 11
MANAGING INFECTED PANCREATIC NECROSIS

- MDM approach in Tertiary Level Centre
- No indication for prophylactic antibiotics or Probiotics
- NG, enteral nutrition indicated if feeding insufficient
- Only intervene with infected necrosis
- Delay intervention until walled off necrosis
- Step approach
- Endoscopic strategies preferable when possible
INDICATIONS FOR SURGERY

- NOMI necessitating bowel resection
- Ischaemic colon secondary to infiltration into mesocolon
- Complex fistulation
LAPAROSCOPIC CHOLECYSTECTOMY FOR MILD/MODERATE AP

- Retrospective analysis: 131 patients Jan 2009 – Dec 2012
  - Early group within 2 weeks – 47
  - Late group after 2 weeks – 84
- Length of stay 7.7 vs 10.7 (p = 0.06)
- 15/84 in late group had further episodes of pancreatitis
• 72 patients
• 38 early, 34 delayed
• No difference in intraoperative complications (7.7% vs 11.7% \( p = 0.07 \))
• No difference in open conversion (10.5% vs 11.7% \( p = 1.0 \))
• 44% of late group had recurrent biliary episodes
All patients admitted with non-severe GSP to two tertiary care teaching hospitals Jan 2008 to May 2015

435 patients

Inpatient cholecystectomy rate increased from 16 to 76% with implementation of Acute Surgery service

Significant reduction in readmissions and ED visits ($p < 0.001$)

No difference in length of stay or open conversion

Reduction in cost 12.6% ($1162$)
CHOLECYSTECTOMY FOR IDIOPATHIC PANCREATITIS

• Retrospective analysis, 2236 patients who presented to a regional Australian hospital
• 195 patients with idiopathic pancreatitis
• 66/195 had cholecystectomy
• Recurrent pancreatitis 19.7 % vs 42.8 % (p = 0.001)
Can Laparoscopic Cholecystectomy Prevent Recurrent Idiopathic Acute Pancreatitis?: A Prospective Randomized Multicenter Trial

Sari Räty; Jukka Pulkkinen; Isto Nordback; Juhani Sand; Mikael Victorzon; Juha Grönroos; Heli Helminen; Pekka Kuusanmäki; Pia Nordström; Hannu Paajanen

- Randomised prospective study
- 85 patients
- 39 LCC 46 control
- 8 Finnish hospitals
- Median follow up 36 months (5-58)
- Recurrence 14/46 vs 3/39 (p = 0.016)
- 25/39 of inspected gallbladders had biliary stones/sludge
ROLE OF ERCP

Urgent endoscopic retrograde cholangiopancreatography is not superior to early ERCP in acute biliary pancreatitis with biliary obstruction without cholangitis

Hee Seung Lee, Moon Jae Chung*, Jeong Youp Park, Seungmin Bang, Seung Woo Park, Si Young Song, Jae Bock Chung

Department of Internal Medicine, Institute of Gastroenterology, Yonsei University College of Medicine, Seoul, Korea

• 505 patients Jan 2005 - Dec 2014
• 73 had AP with obstructed biliary tree with no cholangitis
• No difference in ERCP-related complication or total length of stay between emergency (24 hours) early (72 hours)
• American College of Surgeons recommends:

• Emergency ERCP (within 24 hours) for severe pancreatitis with cholangitis

• Early ERCP (72 hours) for severe pancreatitis with obstructed biliary system but no cholangitis

• No role for ERCP in severe pancreatitis without biliary obstruction or cholangitis
ROLE OF SURGEON

• Working in combined multidisciplinary team in care of patients with pancreatitis
• Providing surgical option for failed percutaneous / endoscopic (MIRP / laparoscopic / open)
• Emergency surgery for NOMI / ischaemic colon / uncontrolled sepsis / fistulation
• Role of early cholecystectomy for mild / moderate GSP
• Role of cholecystectomy for idiopathic pancreatitis
THANK YOU