

## Referral Support Service

## General Surgery

### GS09 Pancreatitis

#### Definition

Acute pancreatitis is an inflammatory process of the pancreas with varying involvement of other local tissues or more remote organ systems.

- Mild – minimal or no organ damage which resolves within 24 hours, followed by an uneventful recovery
- Severe – organ damage often leading to local complications such as necrosis, abscess and pseudocyst formation.

Chronic pancreatitis is characterized by recurrent acute flares of pain with often continual background chronic pain due to permanent damage of the pancreas, often with an alcohol etiology.

#### Exclude Red Flag Symptoms

Any patient with suspected acute pancreatitis should be admitted to secondary care.

#### Management

The overall mortality of acute pancreatitis is 10 to 15% with approximately a third to half of patients developing diabetes or malabsorption.

#### **Causes**

- Gallstones (50%) due to blockage of the pancreatic duct. Small gallstones more likely to cause problems
- Alcohol (20-25%). Once sensitized further alcohol, no matter how small the amount can trigger recurrence. If continued may lead to chronic pancreatitis.
- Iatrogenic causes are an increasingly common cause e.g. ERCP
- Hyperlipidemia associated pancreatitis with triglycerides > 11.3 mmol/L
- Hypocalcaemia
- Infections e.g. EBV, Hep B
- Drugs e.g. azathioprine
- Autoimmunity such as Rheumatoid arthritis, SLE

#### **Presentation**

- Severe, continuous and boring pain. Sudden in onset in epigastrium or with generalised peritonism.
- Pain may radiate to the RUQ, chest, flanks and lower abdomen
- Nausea and vomiting common

- Fever common
- Distension due to increased fluid in retroperitoneum pushing small bowel anteriorly with fluid filled loops of a small bowel ileus.
- A late and serious sign is blue-ish discolouration around the umbilicus (Cullen's sign) or the flank (Grey-Turners's sign)
- Hypotension and tachycardia secondary to hypovolaemic shock

### Investigations

- If suspected do not delay admission by performing blood tests – ADMIT
- If presentation is delayed and bloods are performed serum amylase will stay elevated for 2 days after an attack (x3 normal laboratory levels is diagnostic, usually > 1000 U). Urinary amylase is elevated longer than this.
- CRP is the best marker of severity and will be raised after an acute attack.
- In chronic pancreatitis there may be less pancreas to produce amylase so a lower level maybe of greater significance e.g. 200 U
- CT scan to detect peri-pancreatic inflammation is the test of choice but the scan may not show these features until 1 to 2 weeks after the attack. If chronic pancreatitis is suspected then CT may also demonstrate pancreatic inflammation plus complications and may be useful to use from primary care.
- A mildly elevated amylase can also be seen in other abdominal pathologies including severe gastritis, appendicitis and ovarian torsion.

### Complications

- Develop in 15-20% of people following pancreatitis
- Pancreatic necrosis (+/- infection). Inflammatory mediators induce haemorrhage and thrombosis. This leads to infection with gut organism in 40-70% of cases.
- Pseudocyst formation. Inflammation and ischaemia leads to collections of pancreatic fluid. These can become very large and compress the stomach leading to early satiety and poor oral intake. Surgery to drain or excise not possible until they have become thick walled
- Pancreatic abscess can develop and may take 4 to 6 weeks to develop
- Pancreatic fistulae can develop with any area of the abdominal or thoracic cavity

### Referral Information

#### Information to include in referral letter

- If a more chronic picture then alcohol intake and any previous USS results suggesting the presence of gallstones. If bloods performed then include CRP, amylase and LFT's
- Relevant past medical/surgical history
- Current regular medication
- BMI/Smoking Status

#### Investigations prior to referral

- In the acute setting none, if chronic then bloods and USS if gallstones have been suspected.

### **Patient information leaflets/ PDAs**

To view the Pancreatitis Patient Information leaflet, please [click here](#)

### **References**

- [NICE](#)
- Beckingham and Bornman (2001) –ABC of diseases of liver, pancreas and biliary system. Acute pancreatitis. BMJ 322 (7286), 595-598
- Kingsnorth and O'Reilly (2006) Acute pancreatitis. BMJ 332 (7549), 1072-1076