

Chronic pancreatitis

Definition of chronic pancreatitis:

- Chronic inflammation of the pancreas leading to irreversible damage and pancreatic insufficiency.

Epidemiology of chronic pancreatitis:

- Incidence approximately 1 per 100,000 per annum
- Prevalence 3 per 100,000
- M:F = 4:1
- Average age of onset 40 years

Causes of chronic pancreatitis:

- Alcohol
- Gallstone disease
- Cystic fibrosis
- Haemachromatosis
- Congenital (pancreas divisum)

Presentations of chronic pancreatitis:

- Epigastric pain that 'bores through' to the back
- Relieved by sitting forward/hot water bottle applied to front
- Anorexia
- Nausea
- Weight loss
- Diarrhoea
- Steatorrhea
- Diabetes
- Examination is often unremarkable – sometimes epigastric tenderness is present

Differential diagnosis of chronic pancreatitis:

- Acute pancreatitis
- Pancreatic cancer

Diagnostic criteria:

- Direct biopsy if the pancreas is usually too risky
- Diagnosis is a combination of clinical findings and investigation results
- See below for investigations

Initial management of chronic pancreatitis:

- Imaging:
 - Ultrasound – often non-diagnostic but may show pseudocyst
 - Abdominal x-ray – may show pancreatic calcification
 - CT scan – more detailed than ultrasound
 - MRI scan – may show up more subtle abnormalities of the pancreas and pancreatic ducts
 - EUS – endoscopic ultrasound can allow for direct visualisation of the pancreas
- Fasting blood glucose (to check for diabetes)

- Amylase and lipase usually normal
- Faecal elastase – if < 100 micrograms/gram stool then indicates exocrine pancreatic insufficiency
- Liver function tests – can be elevated if there is stricturing of the common bile duct
- Analgesia:
 - Oral analgesia – chronic pain can be problematic in these patients with some developing intractable pain and opioid dependency. Involvement of the chronic pain team can be helpful.
 - Coeliac plexus block
- Pancreatic enzyme replacement e.g. Creon (40-50,000 units with meals plus 10,000 units with snacks)
- Insulin if patients develop diabetes
- Alcohol avoidance

Further management of chronic pancreatitis:

- ERCP plus sphincterotomy and/or cholecystectomy for gallstone disease.
- Surgery – this can be performed for patients with unremitting pain – i.e. pancreatectomy or pancreaticojejunostomy.
- Splanchnicectomy can be used for pain control

Complications of chronic pancreatitis:

- Malabsorption
- Diabetes
- Chronic pain
- Pancreatic pseudocyst
 - These can rupture, bleed, or occlude nearby structures like the duodenum or CBD. If present for >6 weeks, spontaneous resolution is unlikely and they should be drained, either surgically or endoscopically into the stomach or duodenum.
- Ascites or pleural effusions if pancreatic duct is occluded
 - Ascitic or pleural amylase will be elevated
- Pancreatic carcinoma

Prognosis of chronic pancreatitis:

- There is an increased mortality and morbidity
- Approximately 1/3 of patients will die within 10 years

Common questions concerning chronic pancreatitis:

What are the complications of chronic pancreatitis:

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- Diabetes
- Chronic pain
- Pancreatic pseudocyst
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