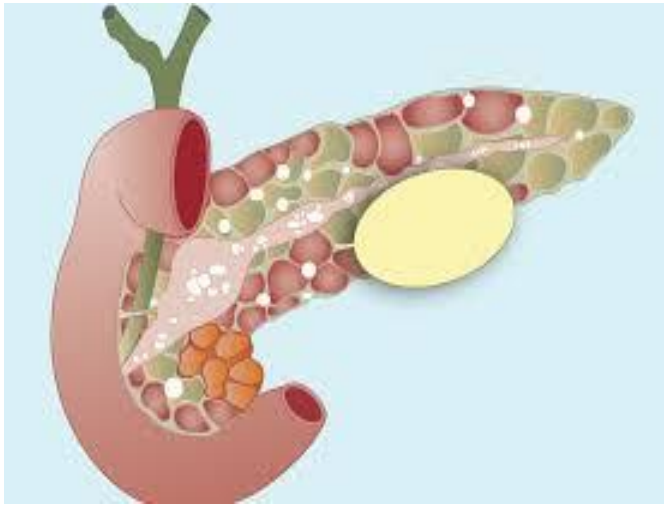
Chronic Pancreatitis



- Chronic pancreatitis is a progressive inflammatory disease in which there is irreversible destruction of pancreatic tissue
- exocrine and endocrine pancreatic insufficiency
- Male : Female = 4:1

Incidence

- In several European, North American and Japanese studies ranges from 2 to 10 new cases per 100 000 population per year.
- Prevalence is around 13 cases per 100 000.
- Mean age of onset is about 40 years.

Aetiology

- Alcohol- 60-70%
- Pancreatic duct obstruction
- Congenital abnormalities
  - -Pancreas divisum
  - -Annular pancreas
- Hereditary(Autosomal dominant disorder)
- Tropical chronic pancreatitis
- Hyperlipidemia
- Hypercalcemia

Clinical features

- Chronic epigastric pain- in majority of patients. Pain radiates to back or left shoulder
- Right subcostal pain
- Nausea and vomiting
- Weight loss
- Steatorrhoea- >30% patients
- Diabetes mellitus

Investigations

Serum Amylase	Usually normal. Elevated only in the early stages of disease.
Abdominal X-Ray-	Pancreatic calcifications
CT or MRI	Calcification is seen in CT. But not in MRI

MRCP	Identify the presence of biliary obstruction and the state of the pancreatic duct
ERCP	Most accurate way of elucidating the anatomy of the duct
Endoscopic ultrasound scan	

Blood test

Liver function test
Fasting blood sugar
Fecal elastase test
Full blood count
CA 19.9 tumour marker(if suspect malignancy)

Sonographic findings characteristic of chronic pancreatitis

- The presence of stones
- Visible side branches, cysts, lobularity
- An irregular main pancreatic duct
- Hyperechoic foci and strands
- Dilatation of the main pancreatic duct and hyperechoic margins of the main pancreatic duct.

The presence of four or more of these features is highly suggestive of chronic pancreatitis

Treatment

Medical treatment

Treat the addiction

- Help the patient to stop alcohol consumption and tobacco smoking
- Involve a dependency counsellor or a psychologist

Alleviate abdominal pain

- Eliminate obstructive factors (duodenum, bile duct, pancreatic duct)
- Escalate analgesia in a stepwise fashion.(Analgesic abuse is frequent)
- Refer to a pain management specialist
- For intractable pain, consider CT/EUS-guided coeliac axis block
- Splanchnic nerve block

Nutritional and pharmacological measures

- Diet: low in fat and high in protein and carbohydrates
- Pancreatic enzyme supplementation with meals
- Correct malabsorption of the fat-soluble vitamins and vitamin B12
- Micronutrient therapy with methionine, vitamins C & E, selenium

Nutritional and pharmacological measures

- Steroids (only in autoimmune pancreatitis, for relief of symptoms)
- Medium-chain triglycerides in patients with severe fat malabsorption
- Reducing gastric secretions

Treat diabetes mellitus

Endoscopic therapy

Sphincterotomy → Beneficial in patients with papillary stenosis and a high sphincter pressure and pancreatic ductal pressure.

Stone removal

Stenting → Should be left in for no more than 4–6 weeks

Surgery

If pancreatic head involved with intractable pain → Pancreatoduodenectomy or Biger procedure(duodenum preserving resection of pancreatic head

If limited to tail → Distal pancreatectomy

If whole gland involved with marked dilatation

→ Longitudinal side to side Pancreaticojejunostomy

↘ Frey's procedure

Complications

- Common bile duct obstruction- Jaundice
- Duodenal obstruction
- Pancreatico enteric fistula
- Pancreaticopleural fistula
- Pseudocyst
- Splenic vein thrombosis
- Pancreatic cancer

Complications management

- Pain – injections, coeliac axis block, surgical/endoscopic relieving of obstruction, total pancreatectomy.
- Enzyme supplementation
- Pseudocyst –drain
- Pseudoaneurysms-insert a coil or ligation
- Pancreatic ascites-stenting and drainage

Prognosis

Development of pancreatic cancer is a risk in those who have had the disease for more than 20 years.