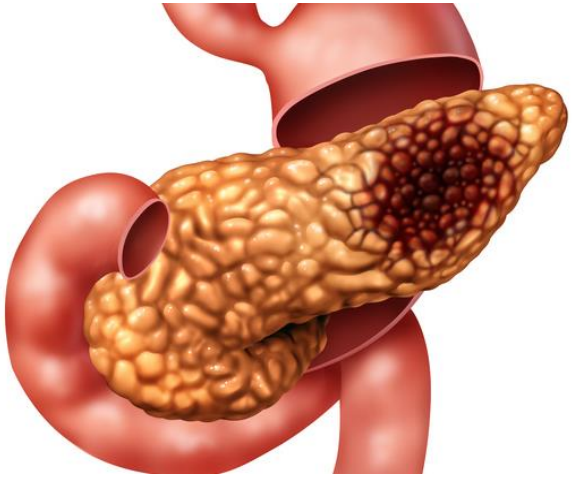
# Carcinoma Of The Pancreas



# Incidence

- incidence is 10 cases per 100 000 population per year.
- It is the fourth highest cause of cancer death.

# Risk factors

Demographic factors

- Age (peak incidence 65–75 years)
- Male gender
- Black ethnicity

Environment/lifestyle

- Cigarette smoking

# Genetic factors and medical conditions

- Family history-Two first-degree relatives with pancreas cancer
- Hereditary pancreatitis (50- to 70-fold increased risk)
- Chronic pancreatitis (5- to 15-fold increased risk)
- Lynch syndrome (HNPCC)
- Ataxia telangiectasia
- Familial breast–ovarian cancer syndrome
- Diabetes mellitus

# Pathology

- More than 85% of pancreatic cancers are ductal adenocarcinomas.
- Ductal adenocarcinomas arise most commonly in the head of the gland.
- Ductal adenocarcinomas infiltrate locally.
- Liver and peritoneal metastases are common.

# Histological subtypes

- Ductal adenocarcinoma(solid tumour)
- Endocrine tumors(rare)
- Cystic tumors
- Adenoma of ampulla of vater(larger the adenoma greater the risk of harbouring malignant foci)

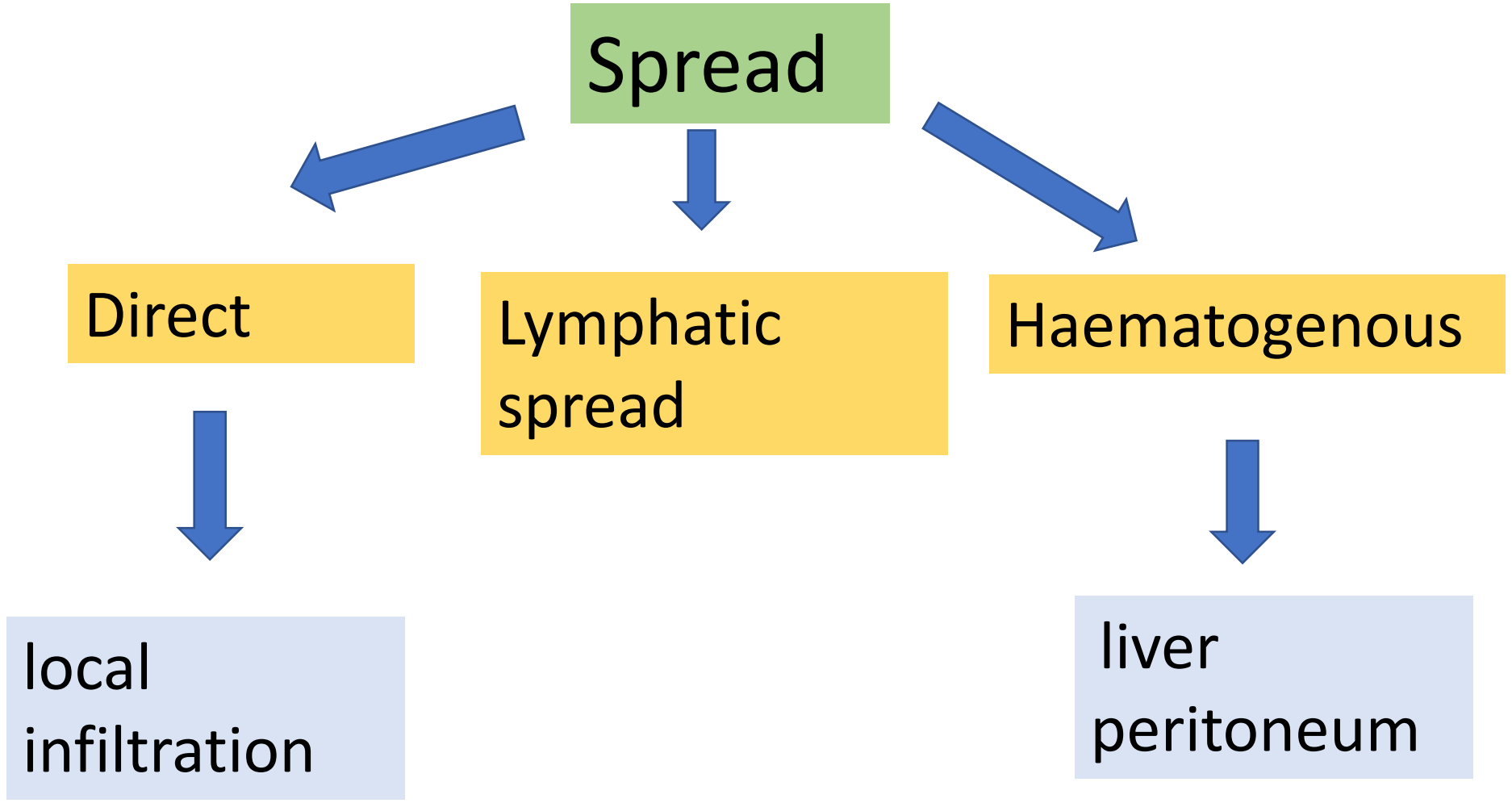
# Cystic tumors

## Serous tumours

Typically found in older women They are benign

## Mucinous tumours

Have the potential for malignant transformation


Spread
Direct
Lymphatic spread
Haematogenous
local infiltration
liver
peritoneum

# Clinical features

- Jaundice- most common symptom( painless jaundice)
- Nausea
- Epigastric discomfort or pain
- Pruritus
- Dark urine
- Pale stools
- Palpable gall bladder

# Clinical features

- Ascites
- Supraclavicular LN
- Thrombophlebitis migrans
- Splenic vein thrombosis- splenomegaly
- Diabetes mellitus.
- Back pain (raising the possibility of retroperitoneal infiltration)

- Courvoisier’s law- A palpable gallbladder and jaundice is unlikely to be due to gallstones.

Palpable gallbladder can be due to an enlarged gall bladder and a pancreatic tumour

Exceptions of Courvoisier’s law

- common duct is obstructed by a stone.

# Investigations

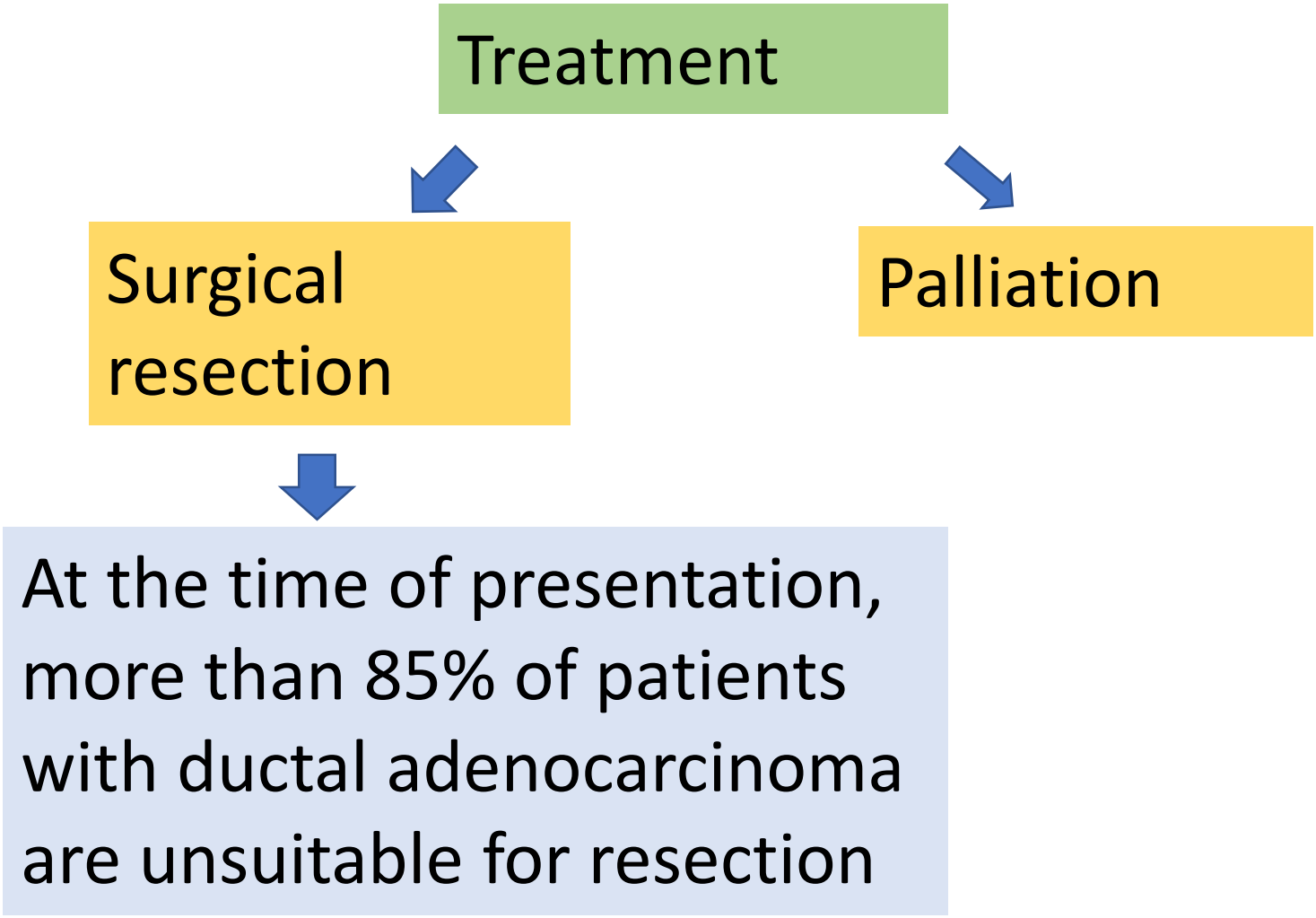
## Laboratory tests

- Serum bilirubin- increased
- Alkaline phosphatase- increased
- SGPT, SGOT- mild elevation
- Tumour markers- CA 19-9

# Radiological

- USS- Low sensitive(can see bile duct dilatation)
- Contrast-enhanced CT scan – dilated biliary and pancreatic duct. (double duct sign)
- Percutaneous CT or US guided needle biopsy
- MRI
- Endoscopic ultrasound scan
- Diagnostic laparoscopy

# Treatment


Treatment
Surgical resection
Palliation
At the time of presentation, more than 85% of patients with ductal adenocarcinoma are unsuitable for resection

# Surgical resection

pylorus-preserving pancreatoduodenectomy (PPPD).

This involves removal of the duodenum and the pancreatic head, including the distal part of the bile duct.

Surgical resection

Whipple procedure

Pancreatoduodenectomy
included resection of the gastric antrum

Total pancreatectomy → For multifocal tumour

Distal pancreatectomy with splenectomy → For tumours of the body and tail

# Adjuvant therapy after surgery

- Most patients with resected ductal adenocarcinoma are now offered 6 months of adjuvant chemotherapy with gemcitabine and/or 5-FU.

When removing the spleen, prior vaccinations against pneumococci, meningococci and Haemophilus influenzae B should be administered, and subsequent antibiotic prophylaxis given

# Palliation of pancreatic cancer

Relieve jaundice and treat biliary sepsis

- Surgical biliary bypass
- Stent placed at ERCP or percutaneous transhepatic cholangiography

Improve gastric emptying

- Surgical gastroenterostomy
- Duodenal stent

# Pain relief

- Stepwise escalation of analgesia
- Coeliac plexus block
- Transthoracic splanchnicectomy

Symptom relief and quality of life

- Encourage normal activities
- Enzyme replacement for steatorrhoea
- Treat diabetes

Consider chemotherapy