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**HPB and Transplant Surgeon**

**KSUMC**

# **PANCREATIC PROBLEMS**

- 
- Acute Pancreatitis
  - Chronic Pancreatitis
  - Pancreatic Tumors
  - Pancreas Transplant



# Acute Pancreatitis

- A non-bacterial inflammatory disease caused by activation and autodigestion of the pancreas by its own enzymes



# Etiology

- 1- Gall stones
- 2- Alcohol
- 3- Hypercalcemia
- 4- Hyperlipidemia
- 5- Familial
- 6- Drug induced



# Etiology

7- Obstruction

8- Viral infection

9- Iatrogenic

10- Trauma

11- Scorpion bite

12- Idiopathic



# History

- Epigastric pain
- Nausea and vomiting
- Previous attacks
- Underlying disease

# Examination

- ↓ BP ↑ PR and Temperature
- Dehydration
- Shock
- Epigastric tenderness
- Grey Turner's & Cullen's signs
- Pleural effusion









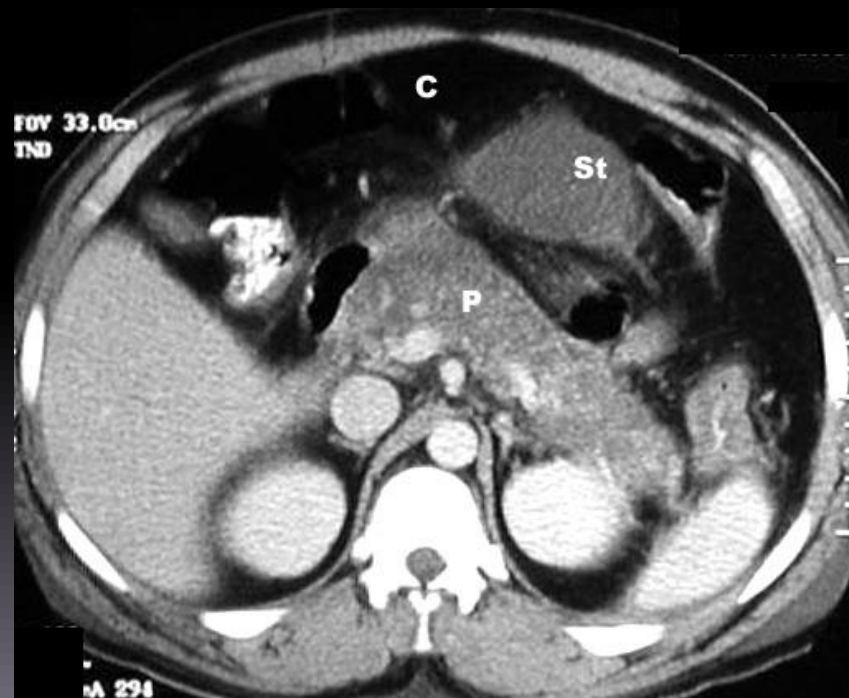


# Lab

- ↑ WBC
- ↑ Lipase
- ↑ Amylase
- Ca & lipids

# Radiology

- AXR → sentinel loop
- CT → Phlegmon

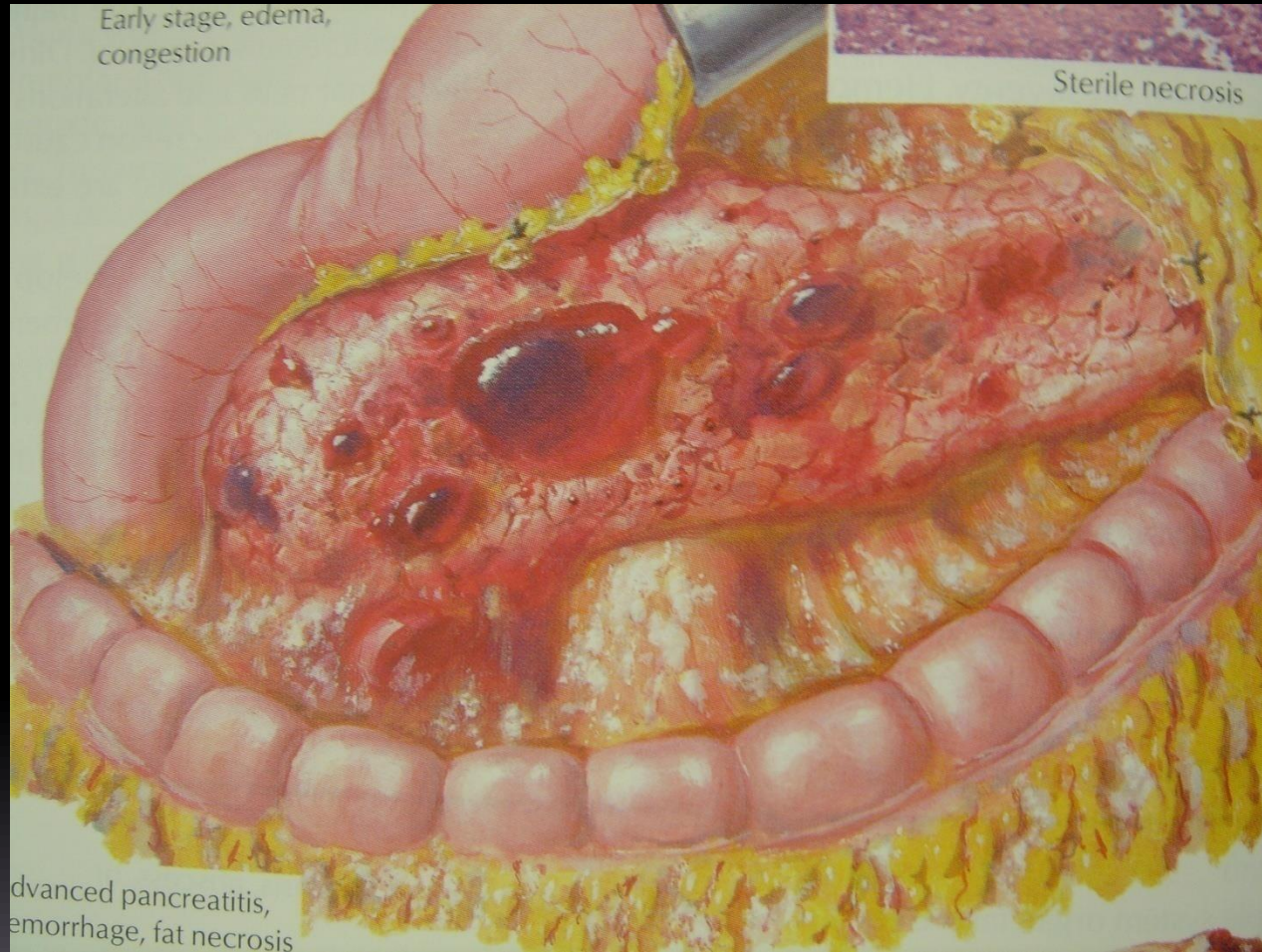




ADAM.

Early stage, edema,  
congestion

Sterile necrosis



Advanced pancreatitis,  
hemorrhage, fat necrosis



# Ranson's Criteria

- On admission

Age > 55

WBC > 16,000

Glucose > 11

AST > 250

LDH > 350



# Ranson's Criteria

- During 24-48 hrs

Hematocrit ↓ >10%

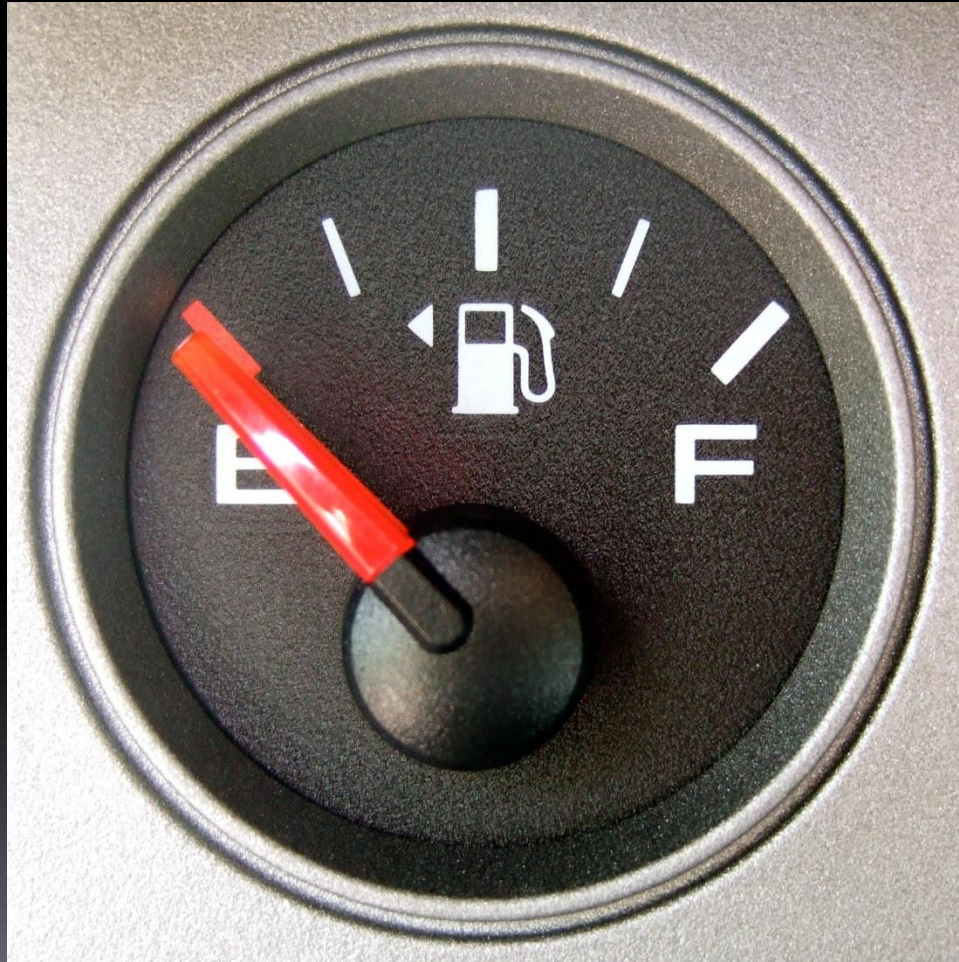
Urea ↑ > 8mg/dl

Fluid sequestration > 6 L

PO<sub>2</sub> < 60

Base deficit > 4

Ca < 8 mg/dl







# Management

- 1- Rest the patient ( Analgesia)
- 2- Rest the bowel ( NPO + NG)
- 3- Rest the pancreas (NPO )

IVF

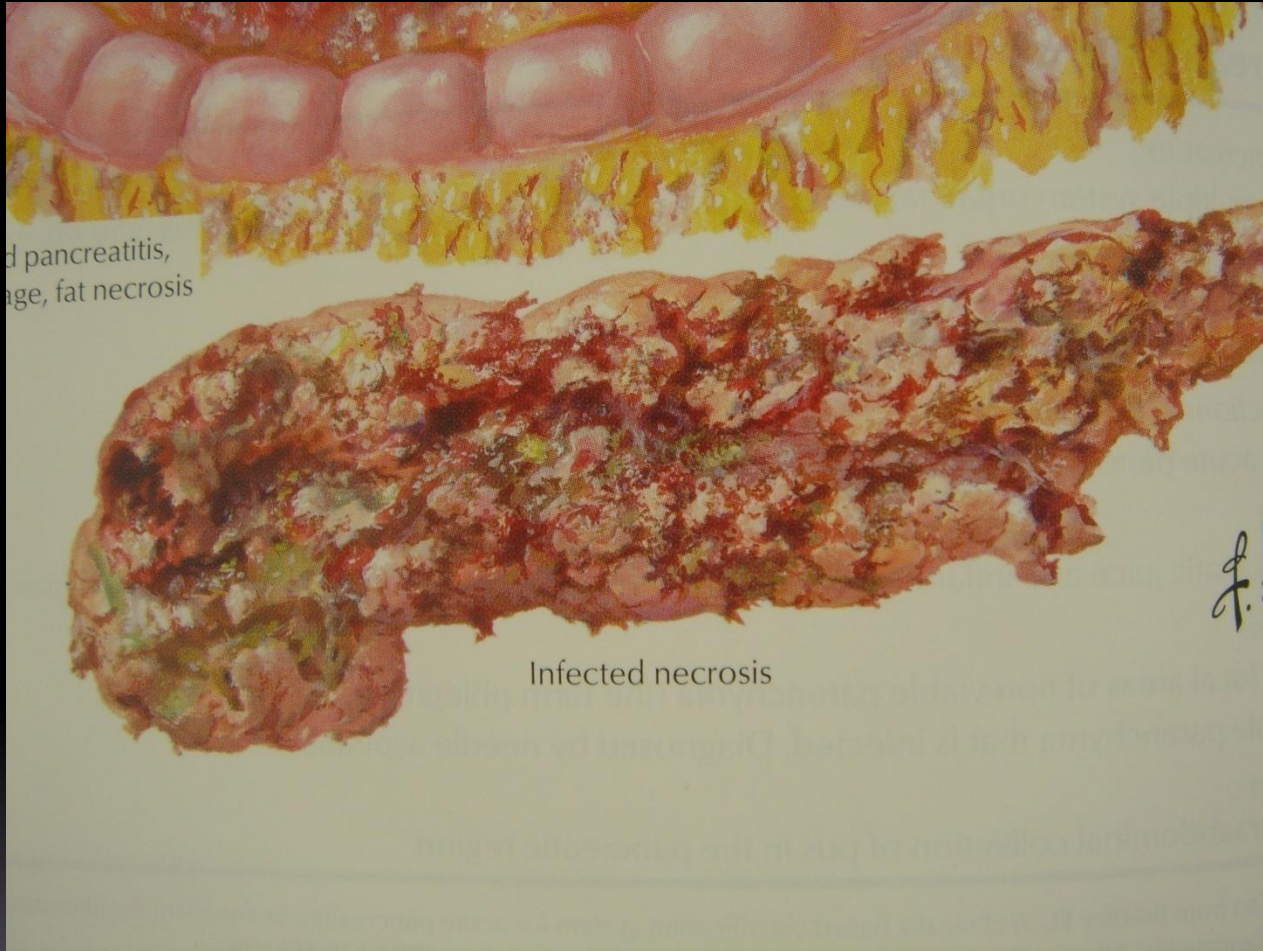
- 
- Cholecystectomy
  - ERCP



# Complications

- Necrosis
- Infected necrosis
- Abscess
- Pseudocyst



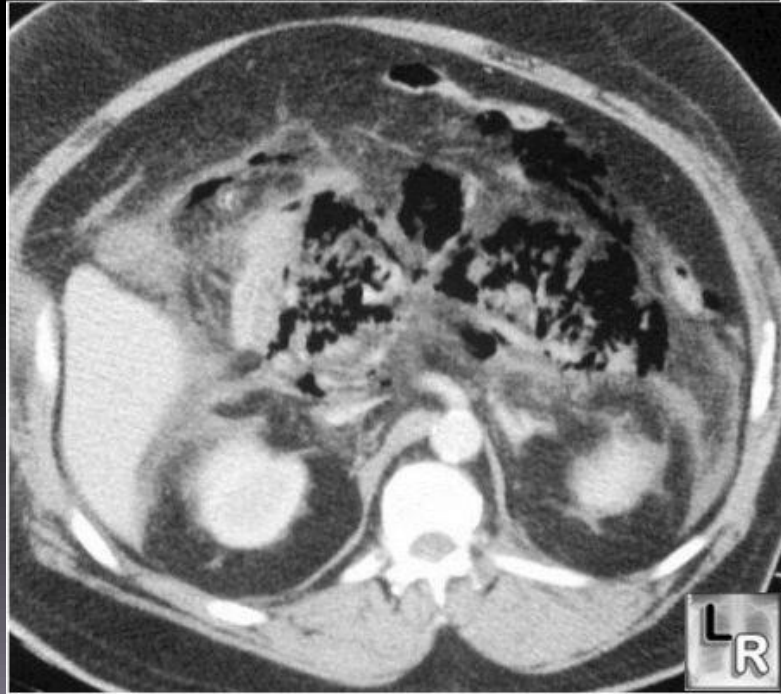


d pancreatitis,  
age, fat necrosis

Infected necrosis

*J. S.*








# Pseudocyst

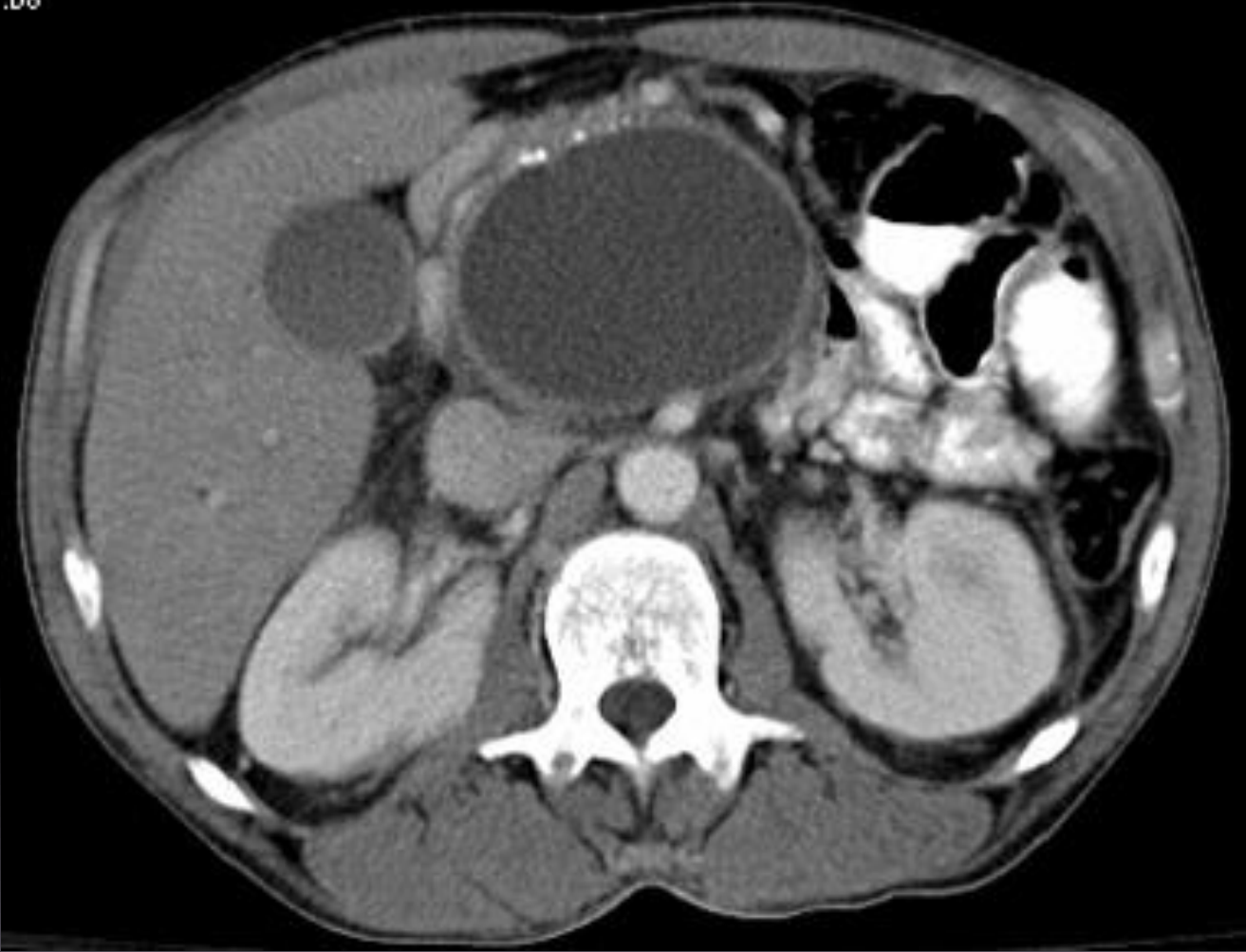
## History

- Failure of pancreatitis to recover or recurrence of symptoms
- Abdominal pain
- Pressure symptoms



- 
- Epigastric mass
  - ↑ Lipase or WBC
  - Obstructive jaundice
  - CT scan


.08







# Complications

- 1- Infection
  - 2- Rupture
  - 3- Bleeding
- 

# Treatment

- Observe for 6-12 weeks
- Drainage indicated in
  - 1- Infection (external)
  - 2- Symptomatic (internal)
  - 3-  $> 5$  cm (internal)











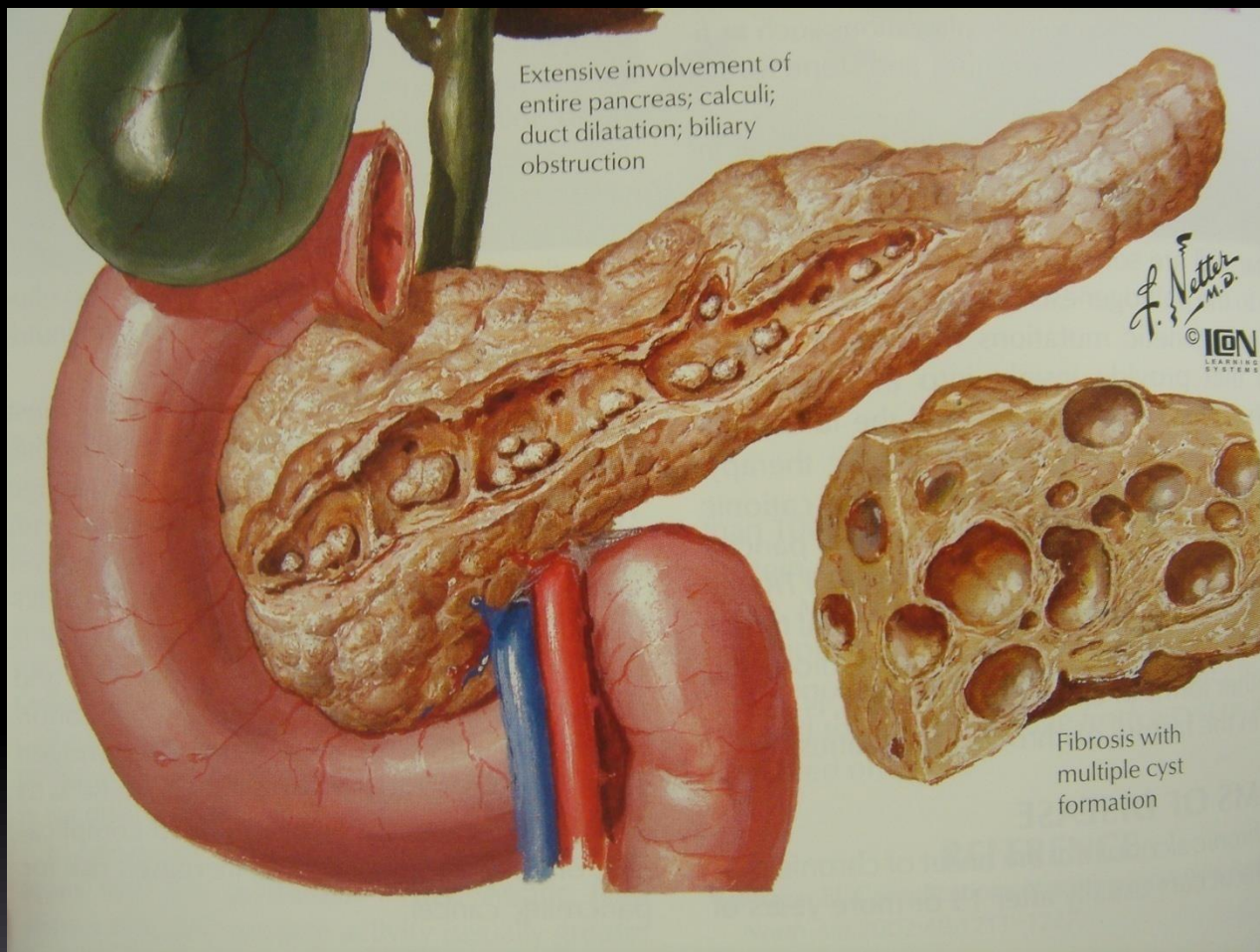
# Chronic Pancreatitis

- Progressive inflammatory disease of the pancreas causing fibrosis and loss of endocrine and exocrine function.
- Commonest cause is alcohol

Extensive involvement of  
entire pancreas; calculi;  
duct dilatation; biliary  
obstruction

F. Netter  
M.D.  
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Fibrosis with  
multiple cyst  
formation





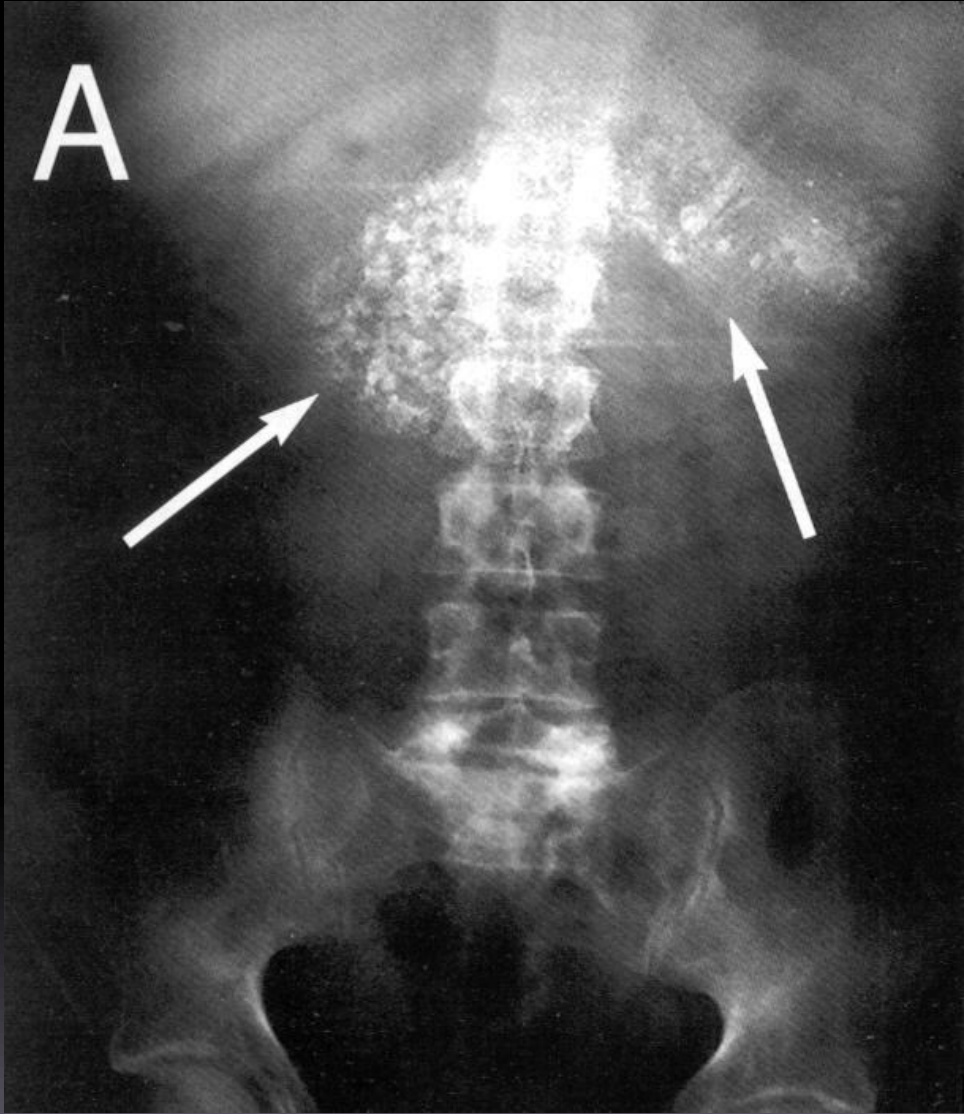
# Symptoms

- 1- Abdominal pain
- 2- Malabsorbtion
- 3- Diabetes



## Diagnosis

- Lipase/Amylase usually normal
- ↑ Glucose
- AXR calcification
- CT Calcification, atrophy, dilated ducts







# Complications

- 1- Biliary obstruction
- 2- Pseudocyst
- 3- Carcinoma
- 4- Splenic vein thrombosis



# Treatment

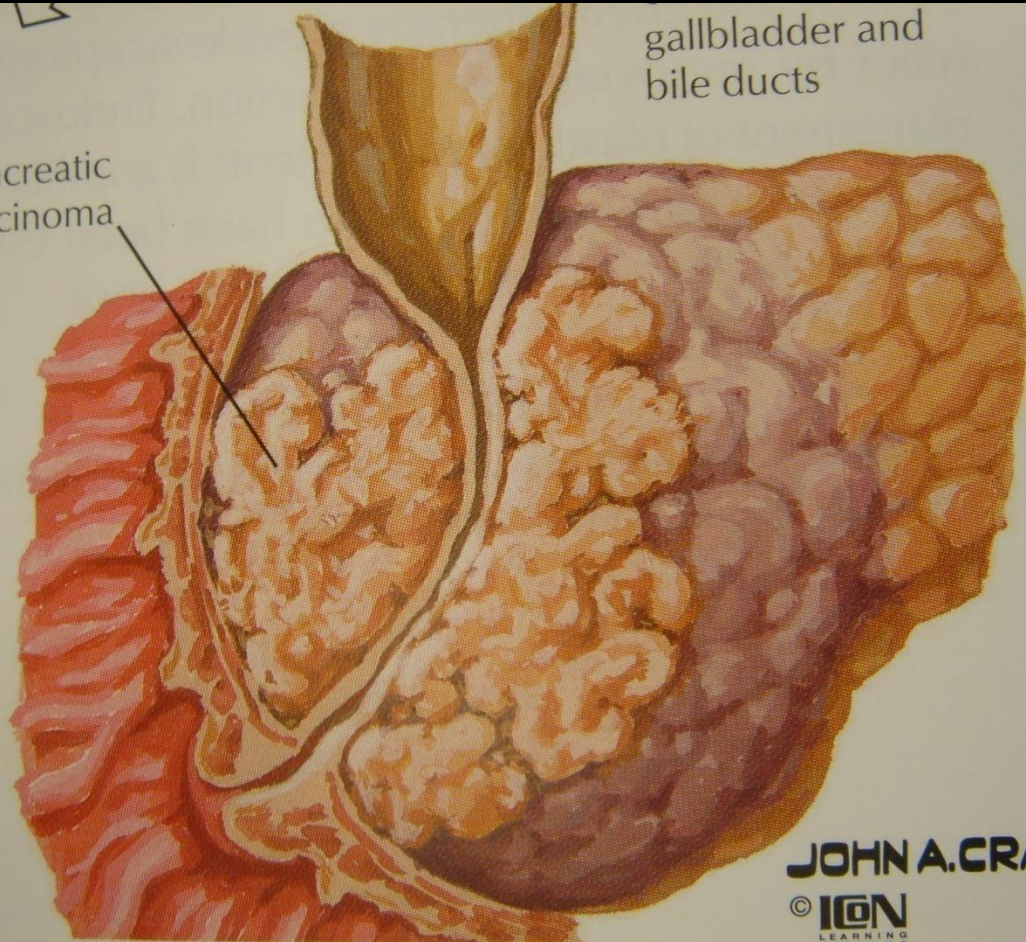
- Pancreatic enzymes
- Insulin
- Analgesia
- Celiac block
- Surgical drainage
- Pancreatectomy

# Pancreatic adenocarcinoma

- 3<sup>rd</sup> leading cause of cancer death in men 35-55
- ↑ with cigarette smoking, fatty food, remote gastrectomy and in blacks
- Other factors, Chronic pancreatitis, polyposis syndromes, family history and cholecystectomy.
- 70% in the head

Pancreatic carcinoma

gallbladder and  
bile ducts



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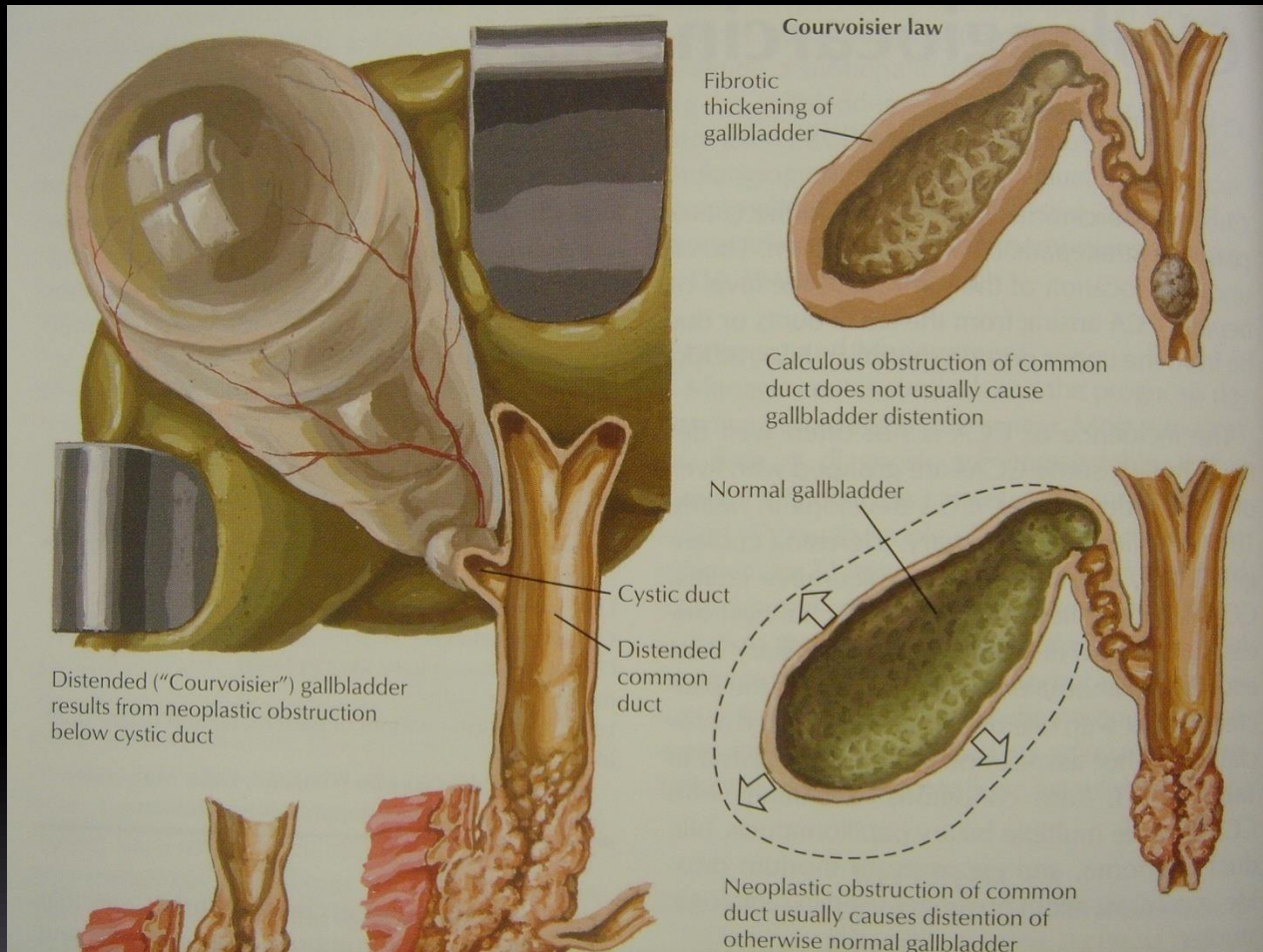
# History

- Weight loss
- Jaundice
- Deep seated pain
- Back pain
- Gastric outlet obstruction



# Examination

- Jaundice
- Fever
- Hepatomegaly
- Palpable gallbladder
- Succession splash





# Lab

- Obstructive jaundice
- ↑ WBC
- CA 19-9
- US
- CT
- ERCP





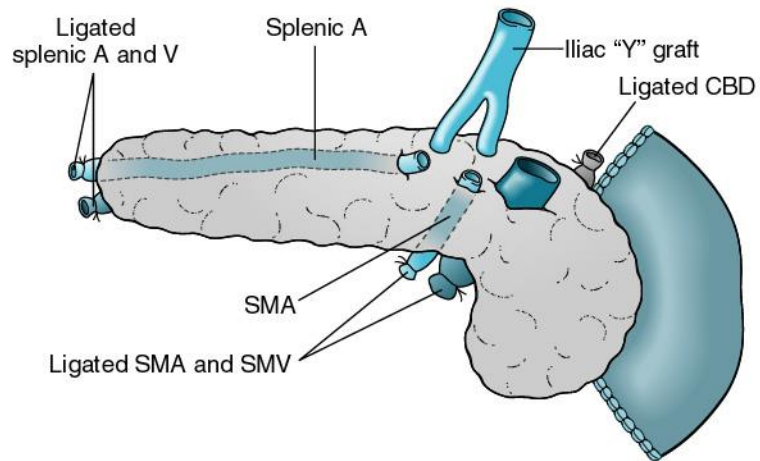




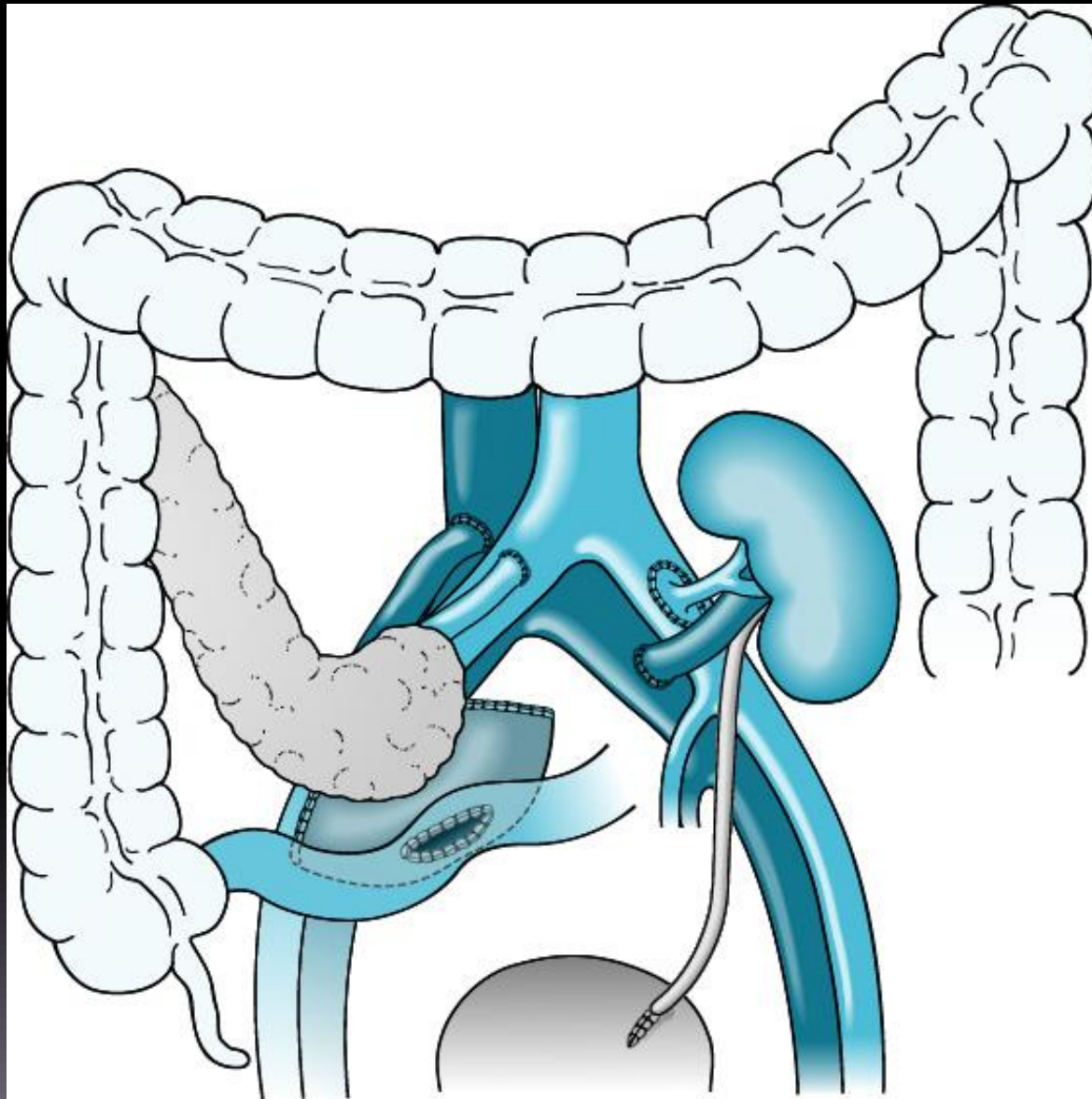
# Management

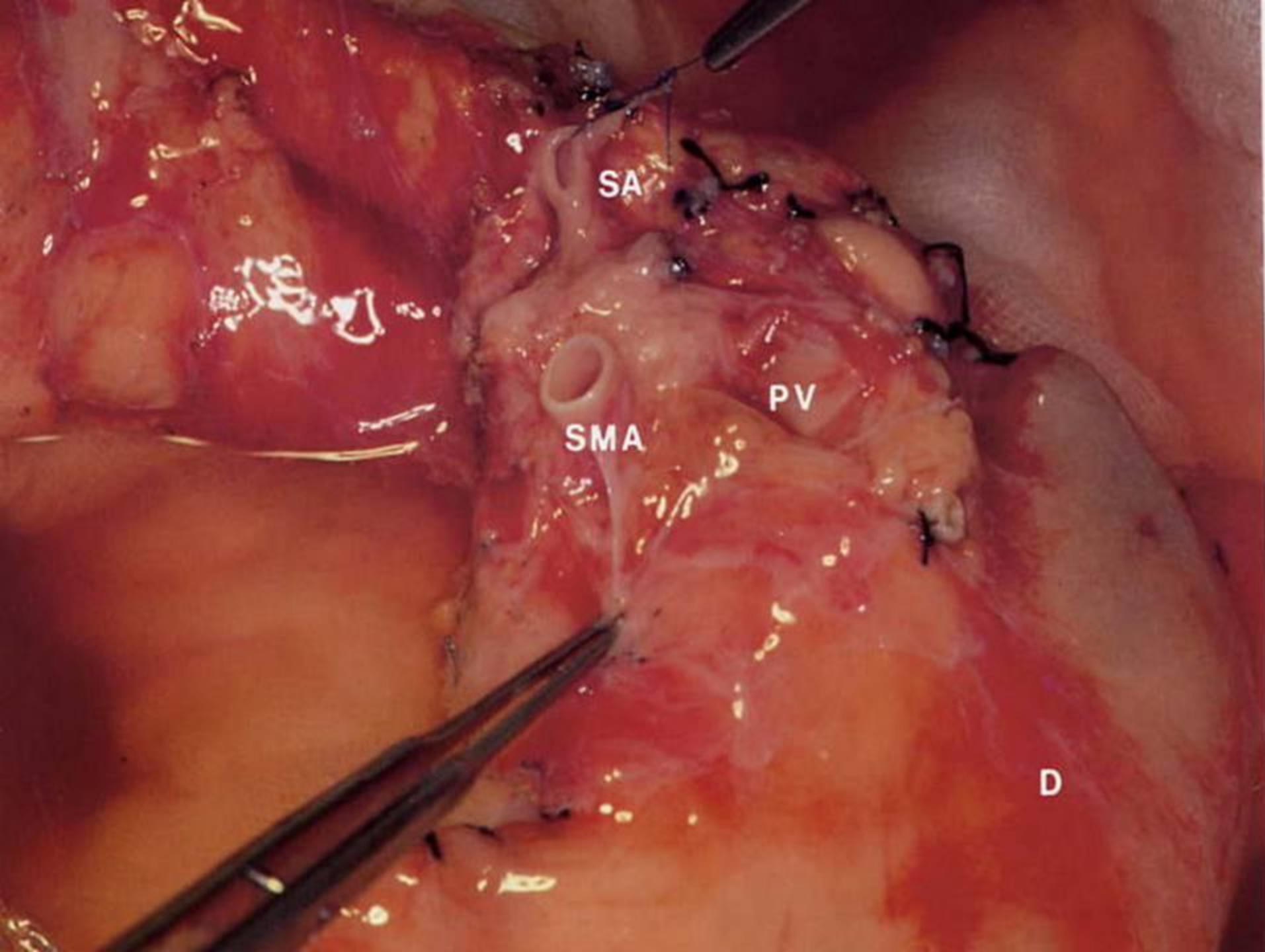
- assess resectability ( rule out local invasion and distant metastasis)
- Whipple's resection
- Palliative biliary and gastric drainage
- Poor long term survival

# Pancreas Transplant



5ADK fig. 15-9 24p6 x 16p3  
Author: Pirsch Artist: Marie Dean



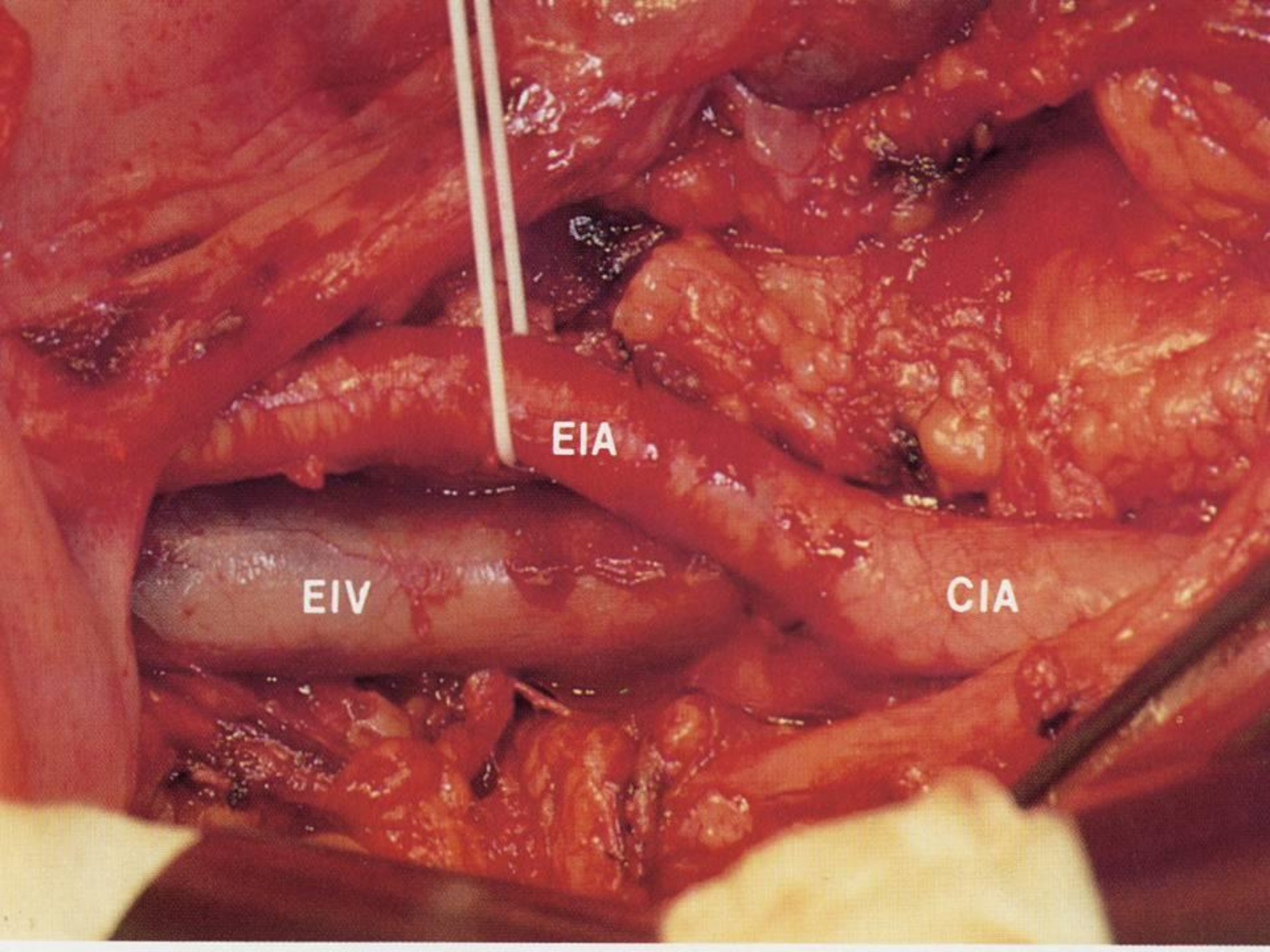


SA

SMA

PV

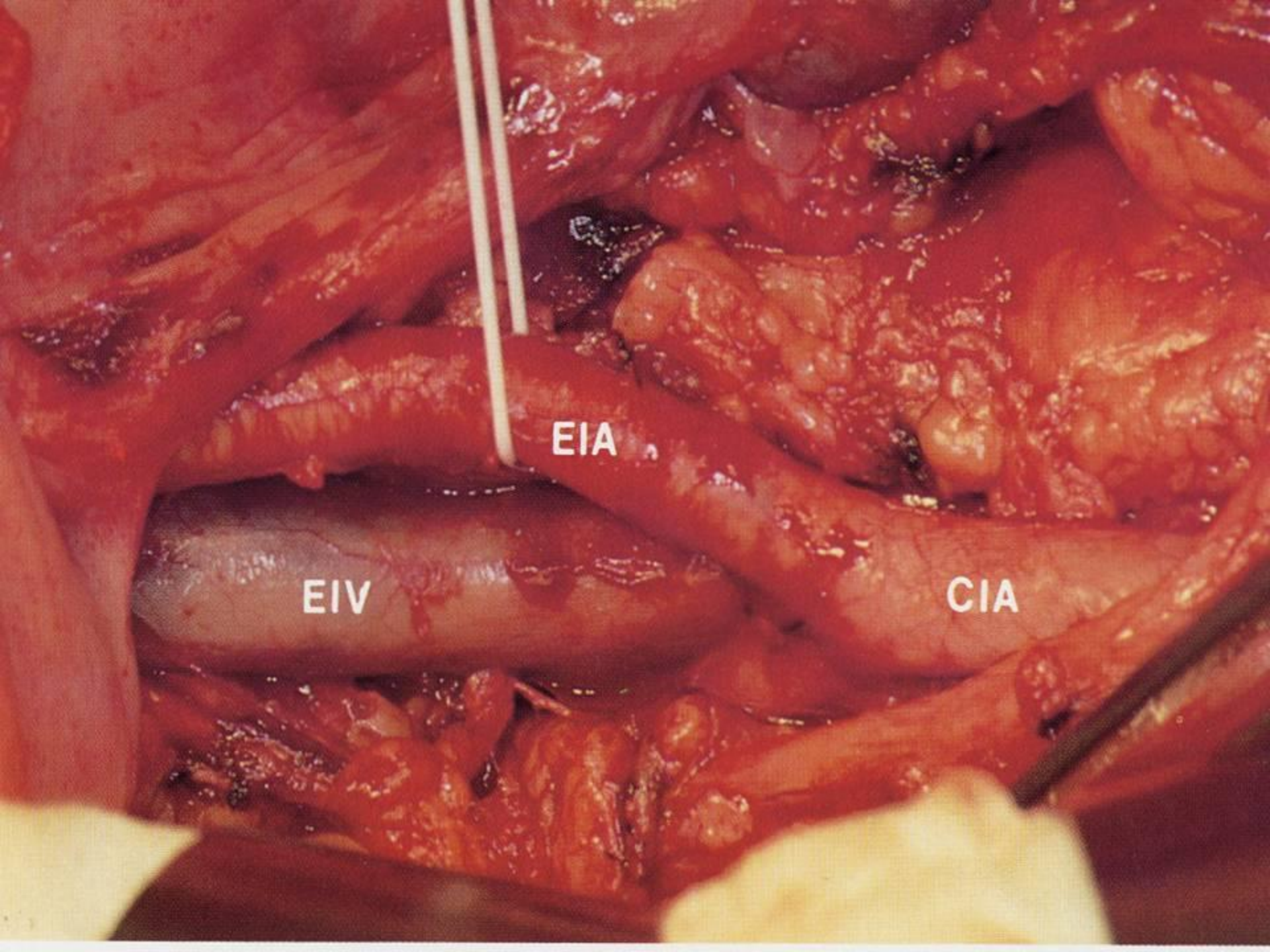
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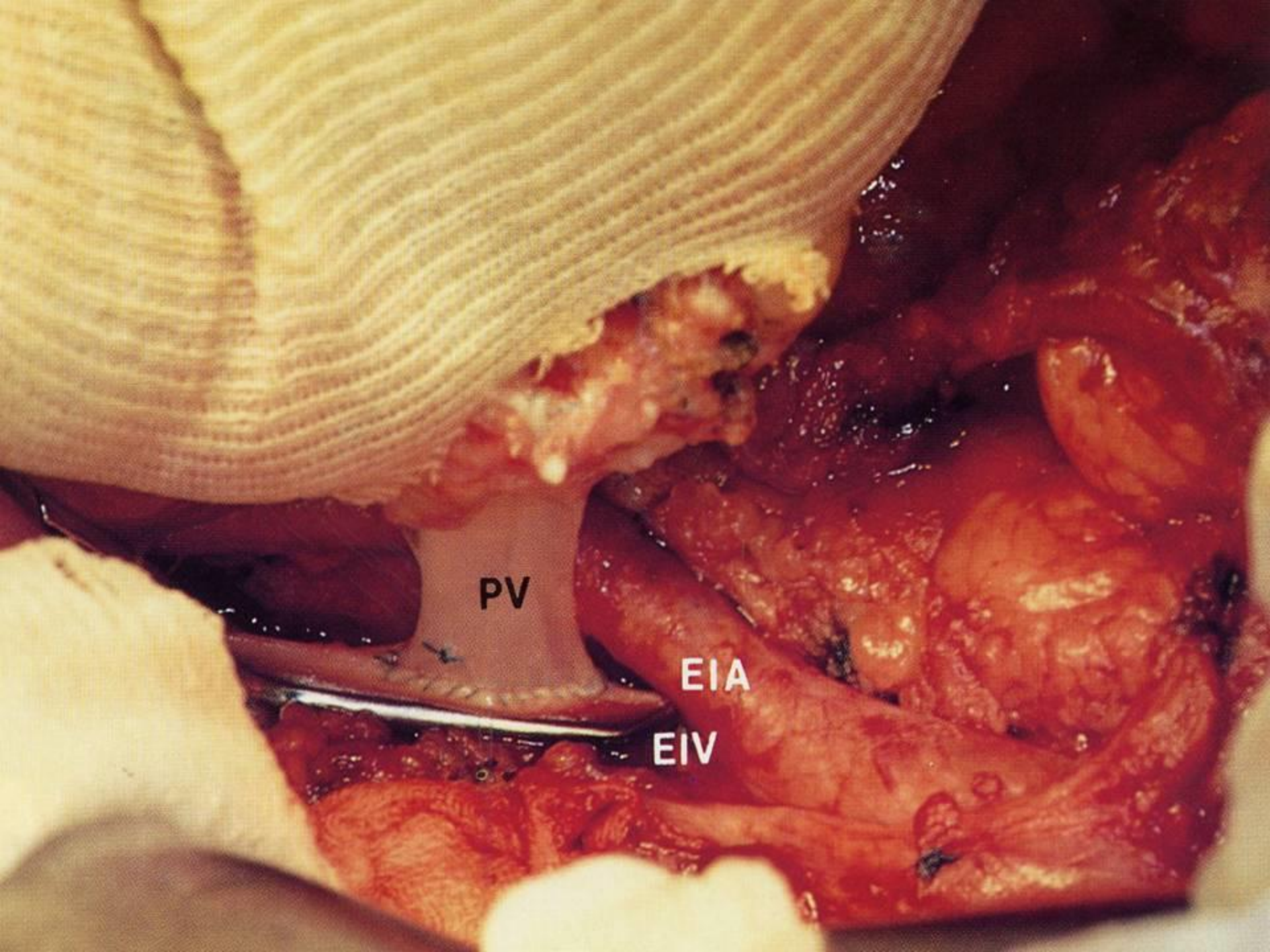


EIA

EIV

CIA





PV

EIA

EIV

