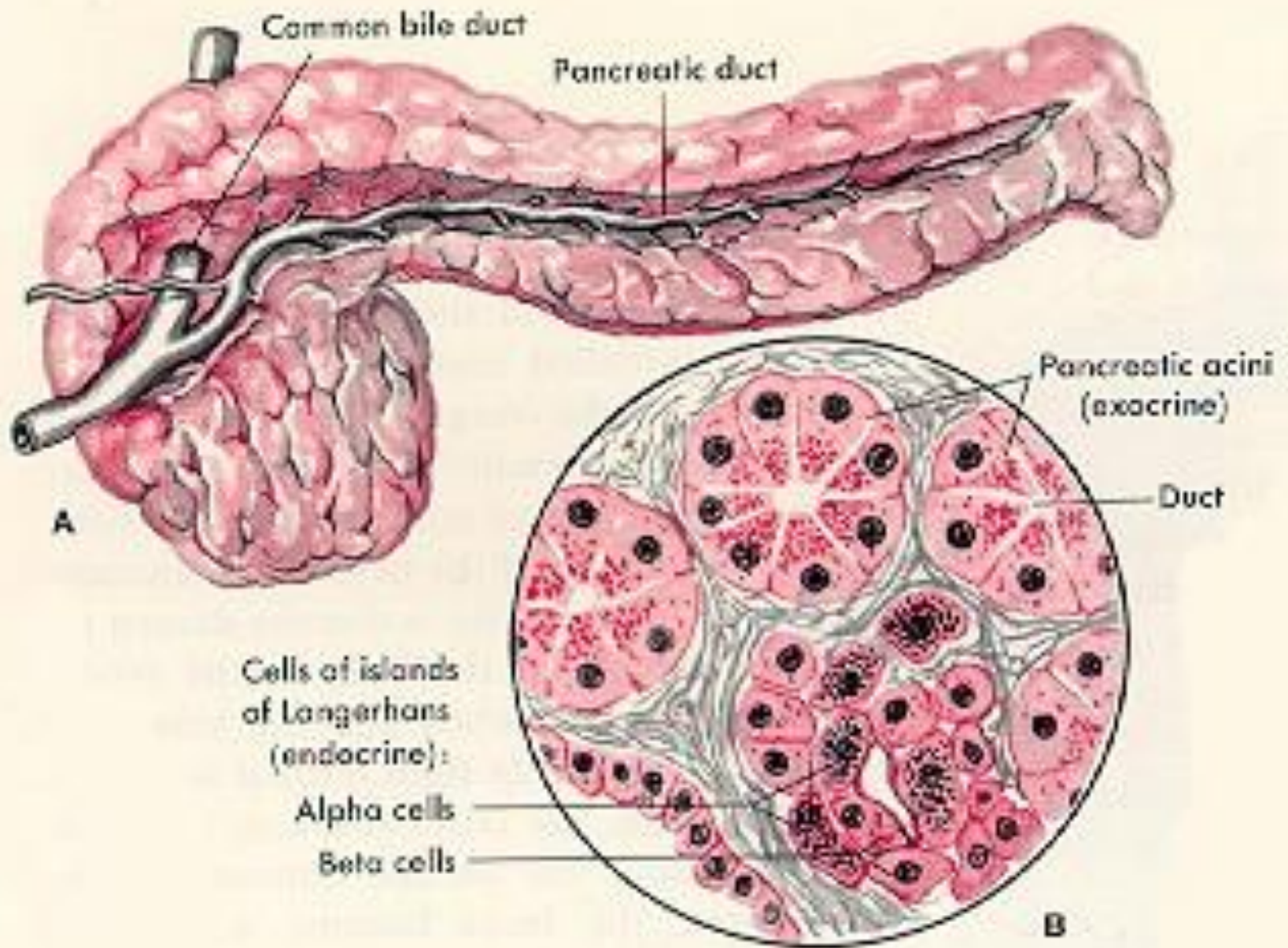


The pancreas

Pr. M. BILAL

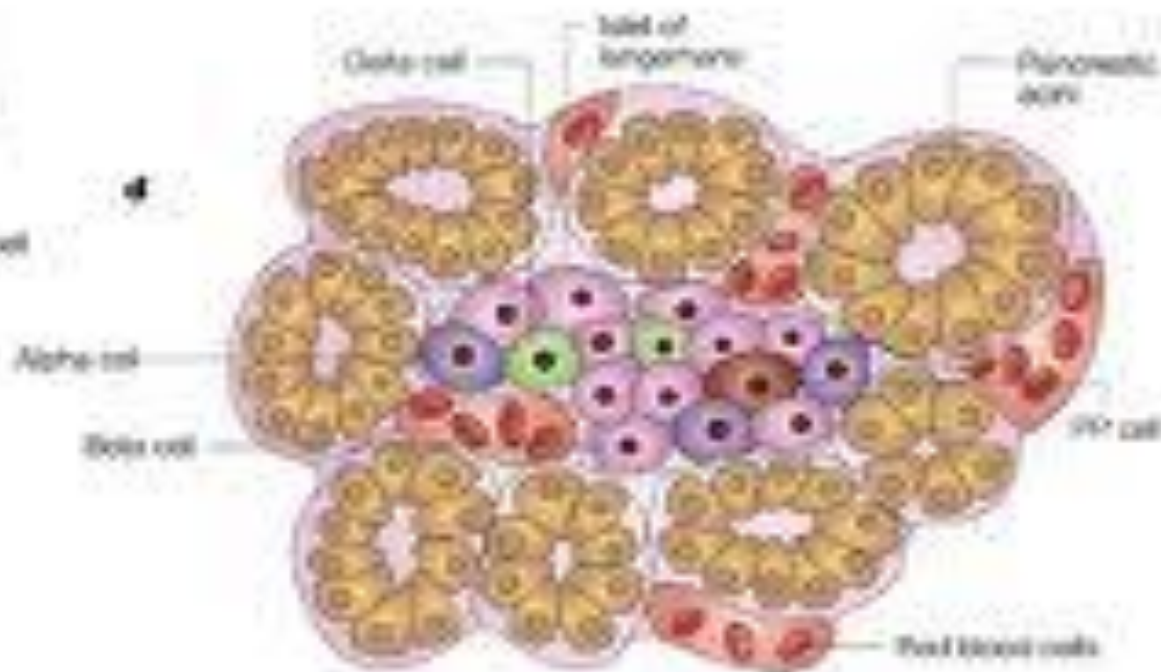
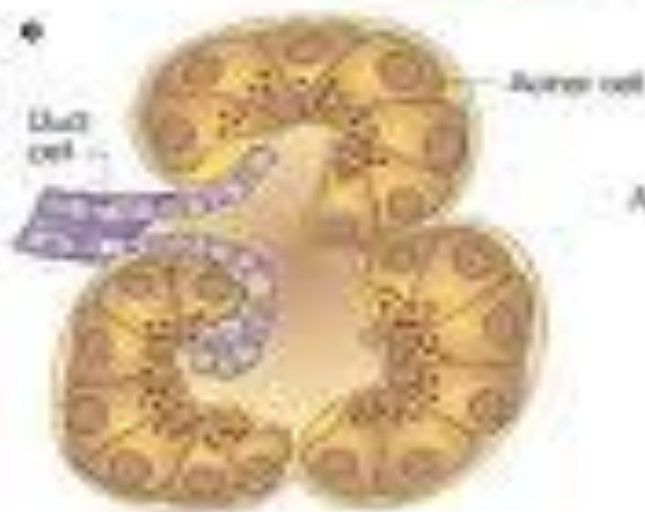
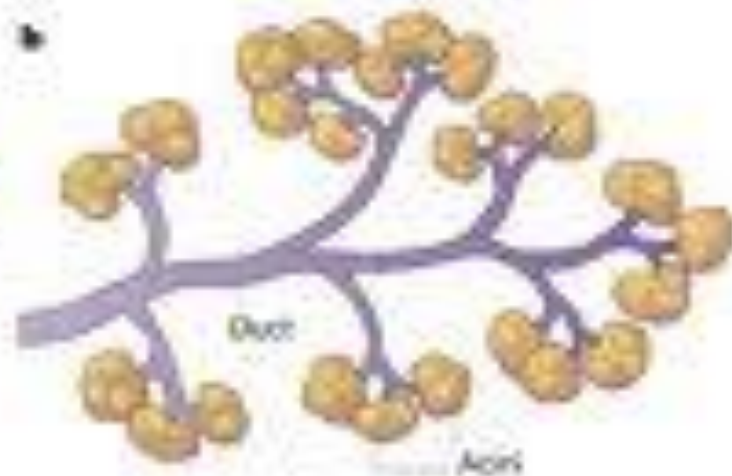
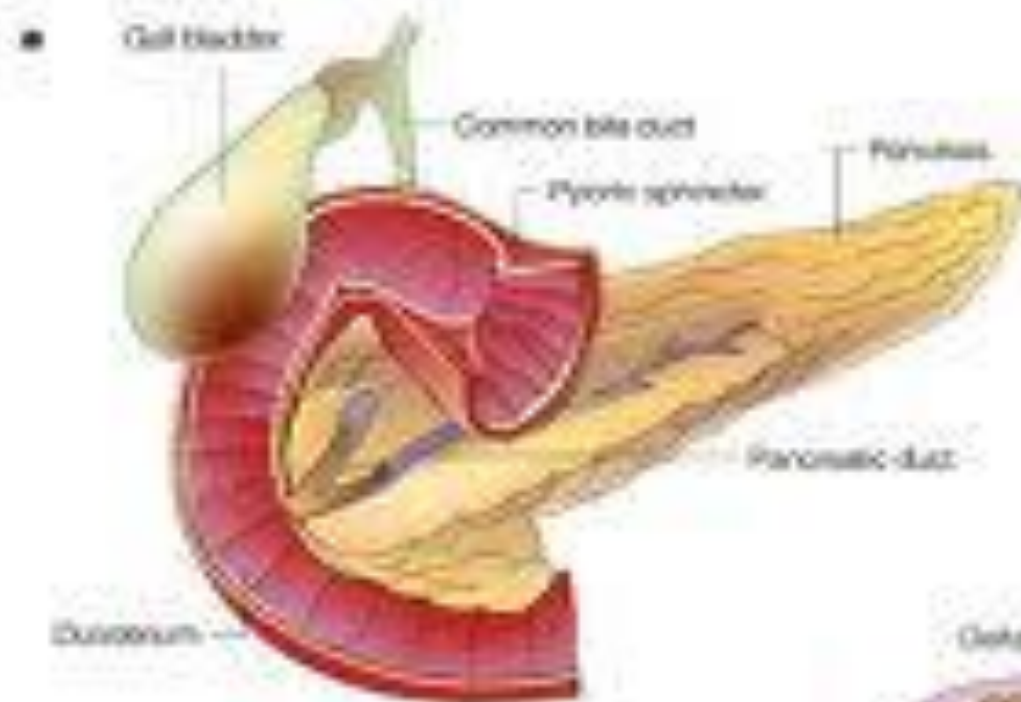


Pancreatic Neoplasms

Exocrine tumors :

Benign tumors of exocrine cell origin are rare and include :

acinar cell and **ductular cell adenomas** and **connective tissue tumors** such as hemangiomas , lymphangiomas , and desmoid tumors . **serous cysadenomas** (arising from acinar cells) and **mucinous cystadenomas** (arising from ductular cells), while histologically benign , are thought to have the capacity to degenerate into **cystadenocarcinomas** . large cystic lesions may resemble pseudocysts and are detected because of their increasing size .



Pancreatic Neoplasms

Exocrine tumors :

Malignant exocrine tumors include :

ductular , acinar cells , and connective tissue tumors

the diagnosis of carcinoma is usually made from histologic examination of a biopsy or surgically resected specimen

specific tumor markers: CEA , POA , CA 19-9 , DUPAN-2

Patients with pancreatic adenocarcinoma usually manifest symptoms of **weight loss** and **vague**

abdominal discomfort and may present with

obstructive jaundice if the tumor arises in the **head of the pancreas .**

gallbladder

common
bile duct

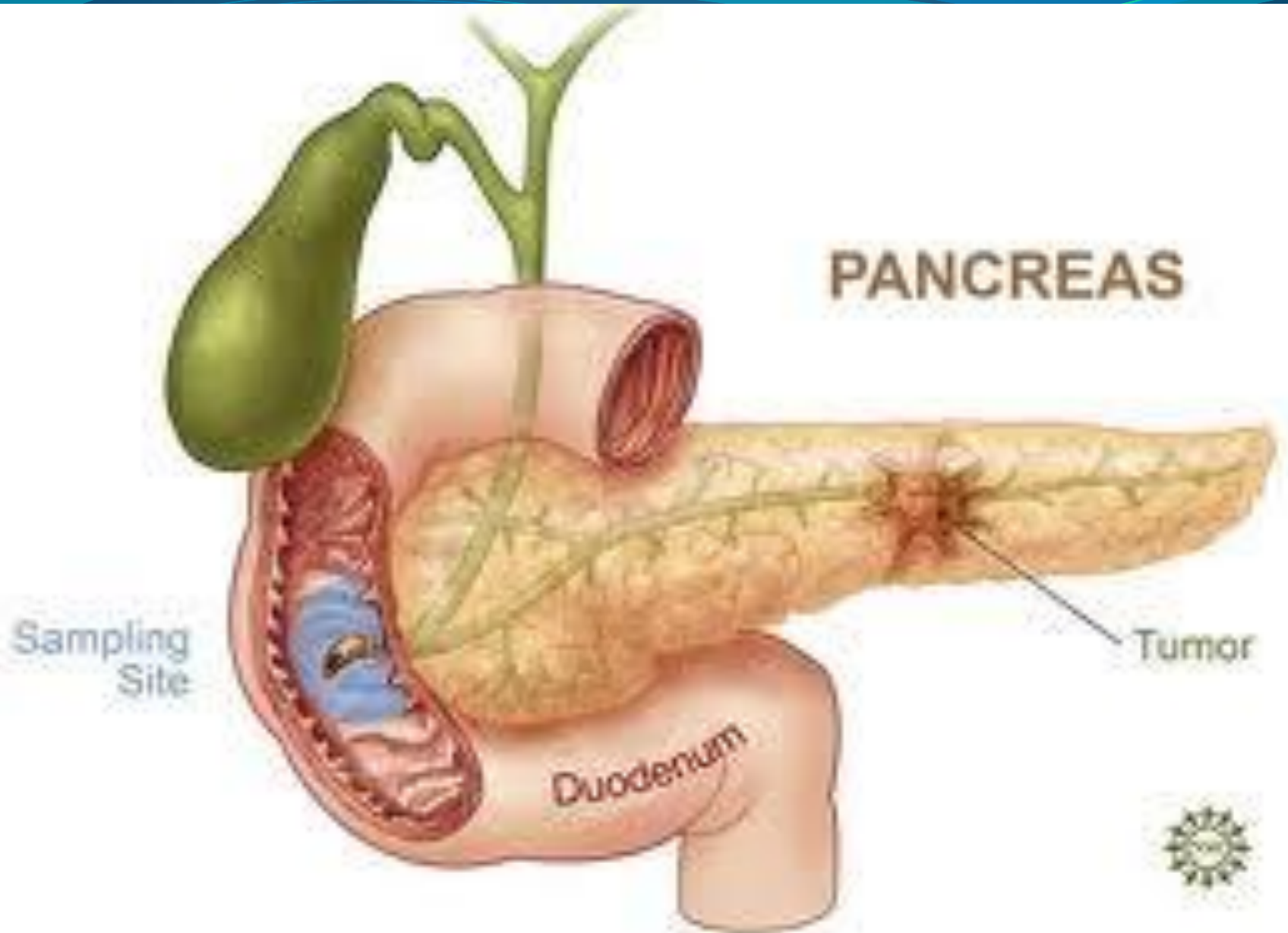
pancreas

pancreatic
duct

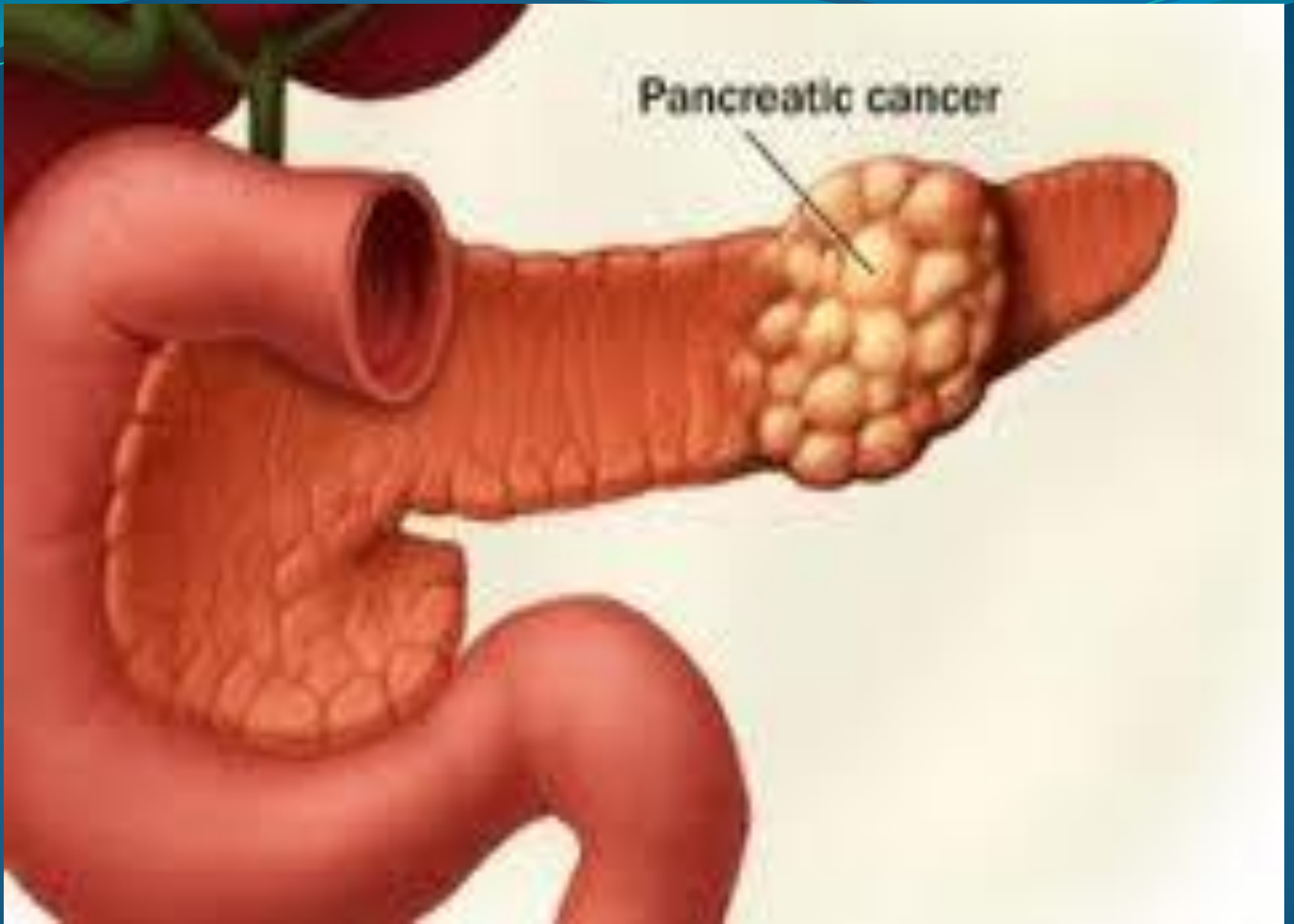
duodenum

common
bile duct
opening





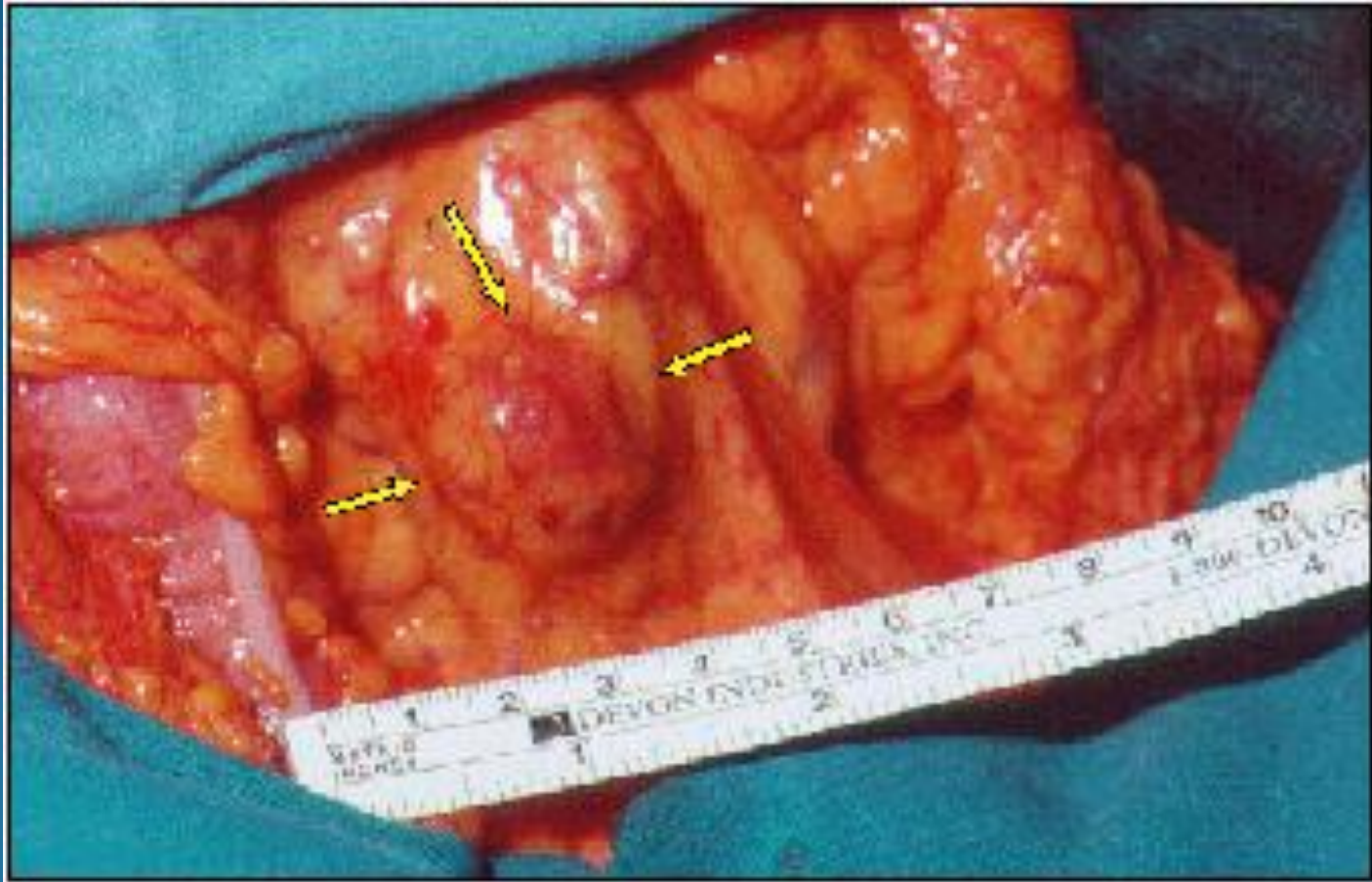
Pancreatic cancer



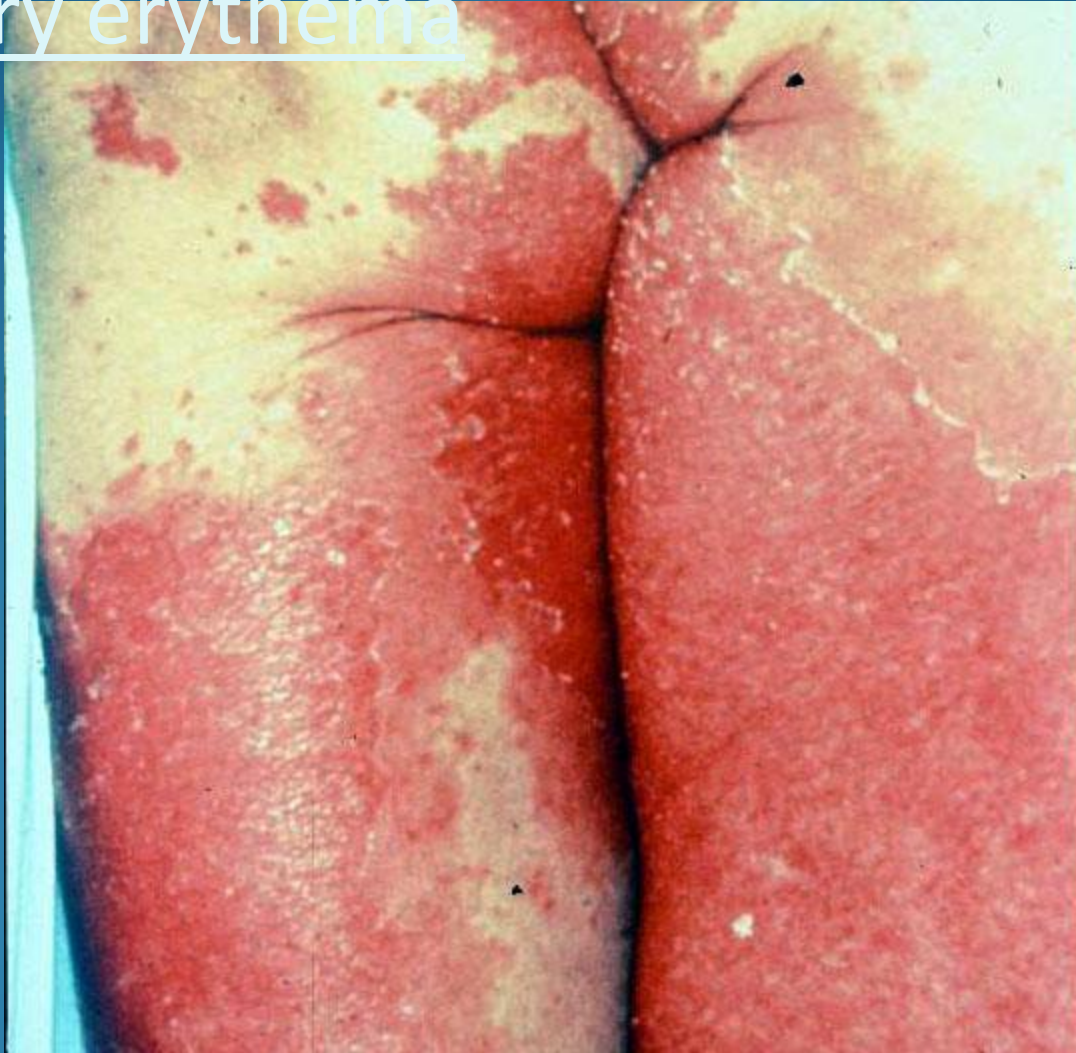


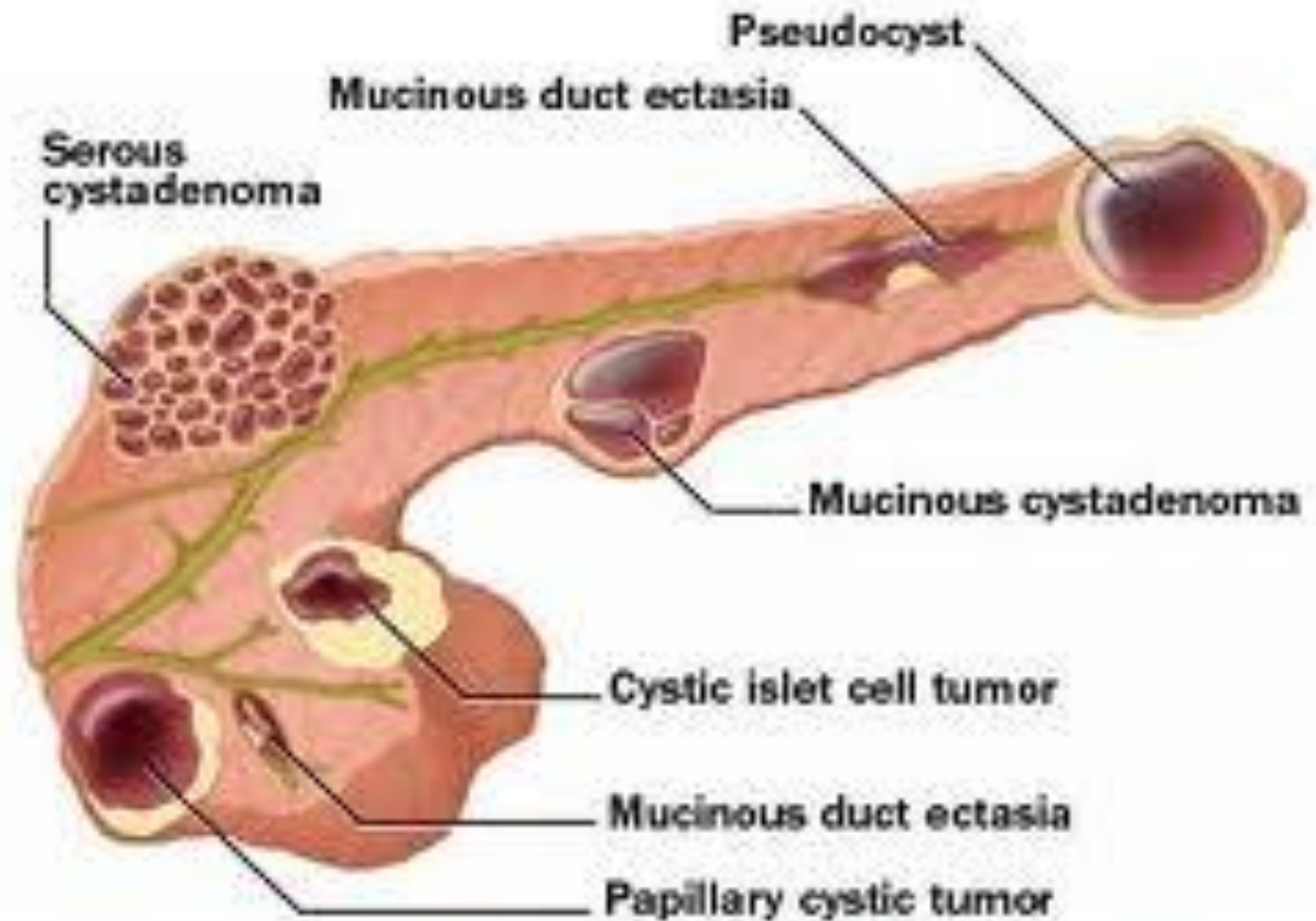
Insulinoma Showing up as a small nodule on the pancreas

Gastrinoma



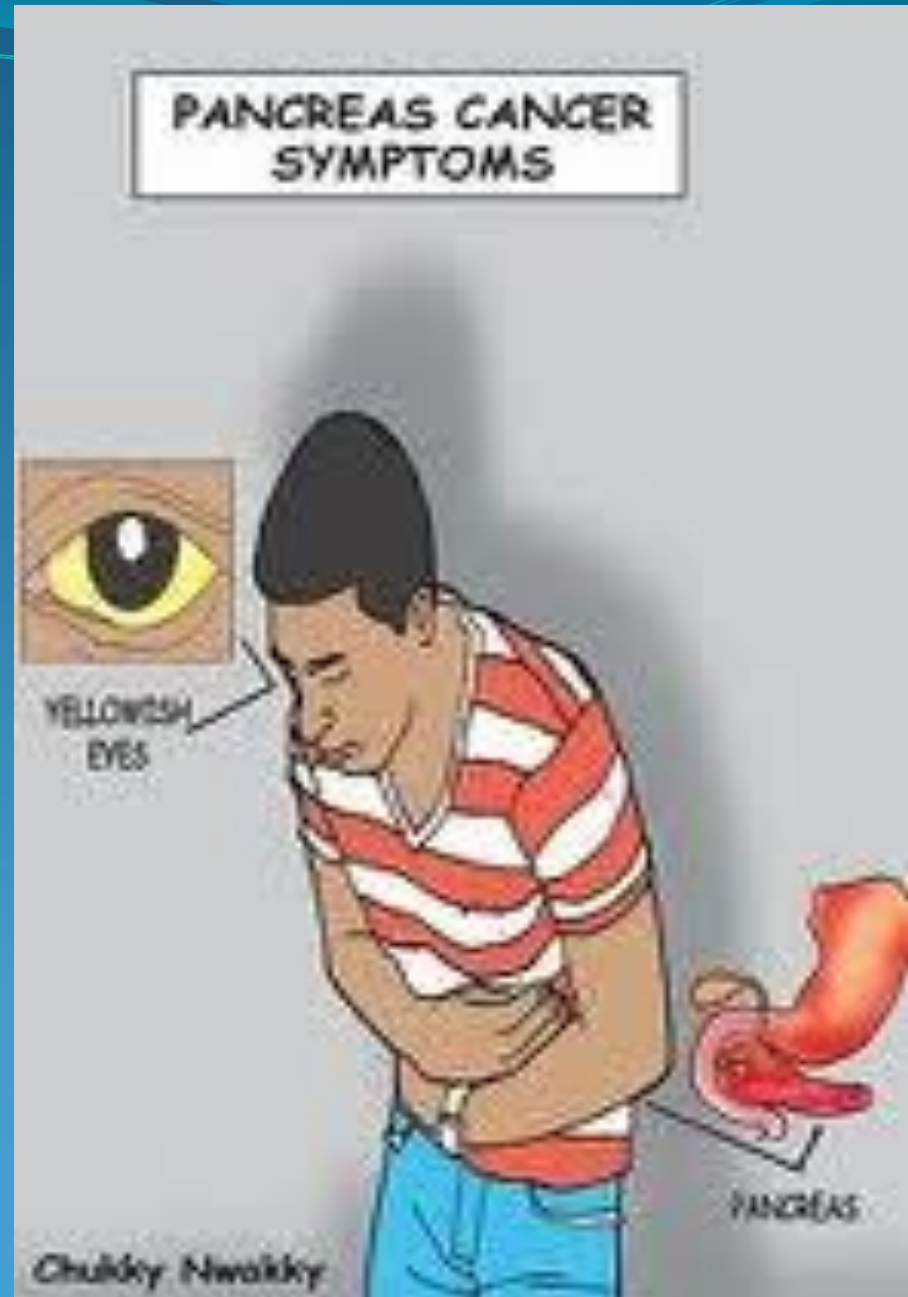
Glucagonoma syndrome -- necrolytic migratory erythema







CT showing a pancreatic adenocarcinoma of the pancreatic head. The gallbladder (gb) is distended because of biliary obstruction. The superior mesenteric artery (sma) is surrounded by tumor, making this an unresectable T4 lesion. •



Risk factors :



Risk factors :



Risk factors





الإفراط في شرب الخمر



الأطعمة المقلية



الأطعمة المصنّعة



" الأسماك المملحة أو
المجففة "



الحبوب المقلية



الحبوب المتفحفة



الحبوب الحمراء



الموشاتس و الكيكات المحلى



الوجبات الخفيفة



المشروبات المحلاة



Photo source: <http://2.bp.blogspot.com>



**FRUITS AND
VEGETABLES ARE
THE BEST WAYS
AVOIDING
FROM CANCER**

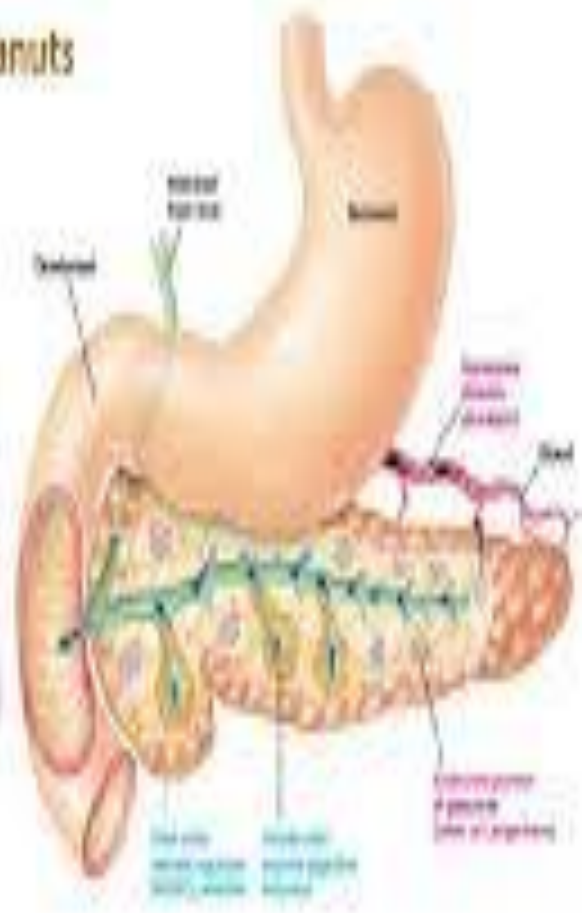
Prevent Pancreatic Cancer with Cereals and Peanuts



www.tumorexpress.com



www.tumorexpress.com









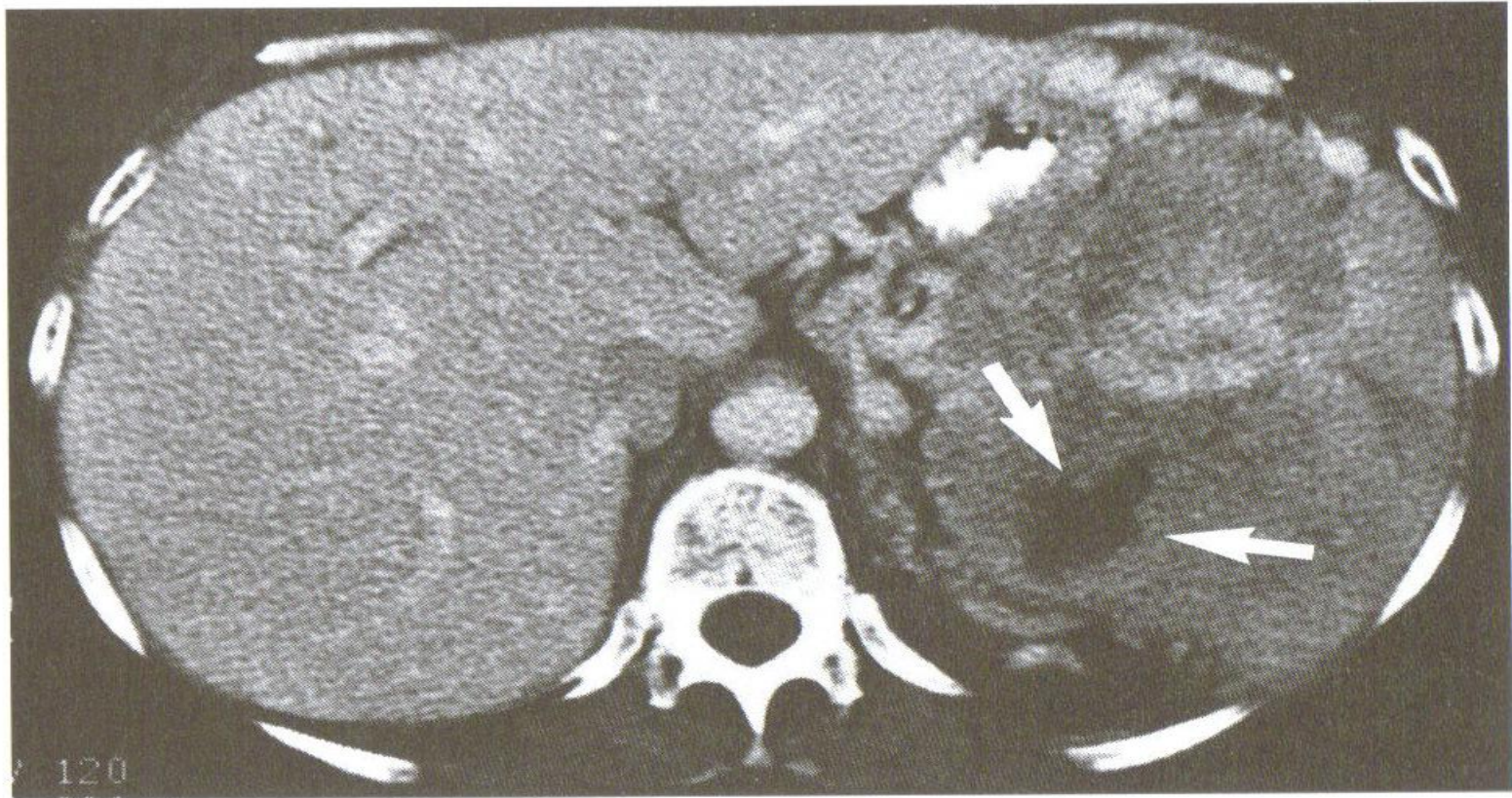


Figure 23.4 Computed tomography of patient with large non-functioning tumor of tail of pancreas. Note area of cystic degeneration and hypodense areas of necrosis (arrows). This patient underwent a potentially curative resection of the tumor.

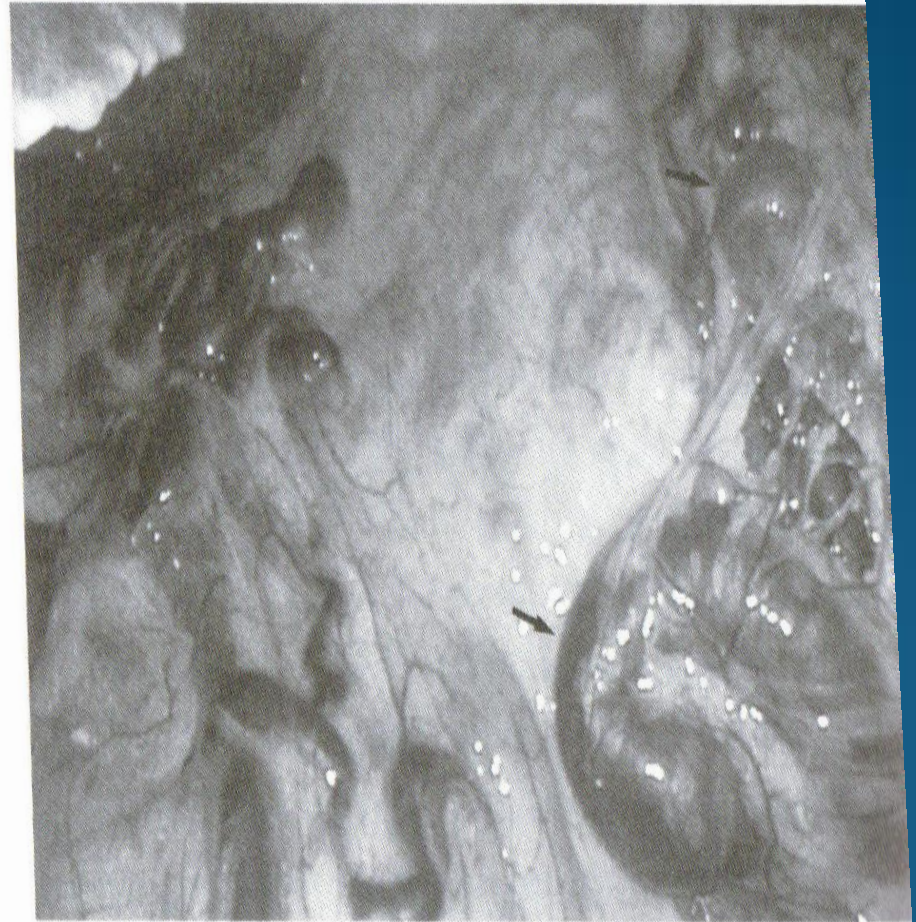


Figure 23.7 (A) Large tumor in the tail of the pancreas with splenic vein obstruction and varices (arrows). This tumor was resected with negative margins. (B) Intraoperative picture of varices encountered at the time of resection (arrows).



Figure 23.3 Location of 24 duodenal gastrinomas in patients with Zollinger–Ellison syndrome. Seventeen tumors were in the first portion, five were in the second, and two were in the third. (From Thorn et al.⁴⁷)



Pancreatic Neoplasms

the tumor may be confirmed by contrast or scanning radiography

ERCP

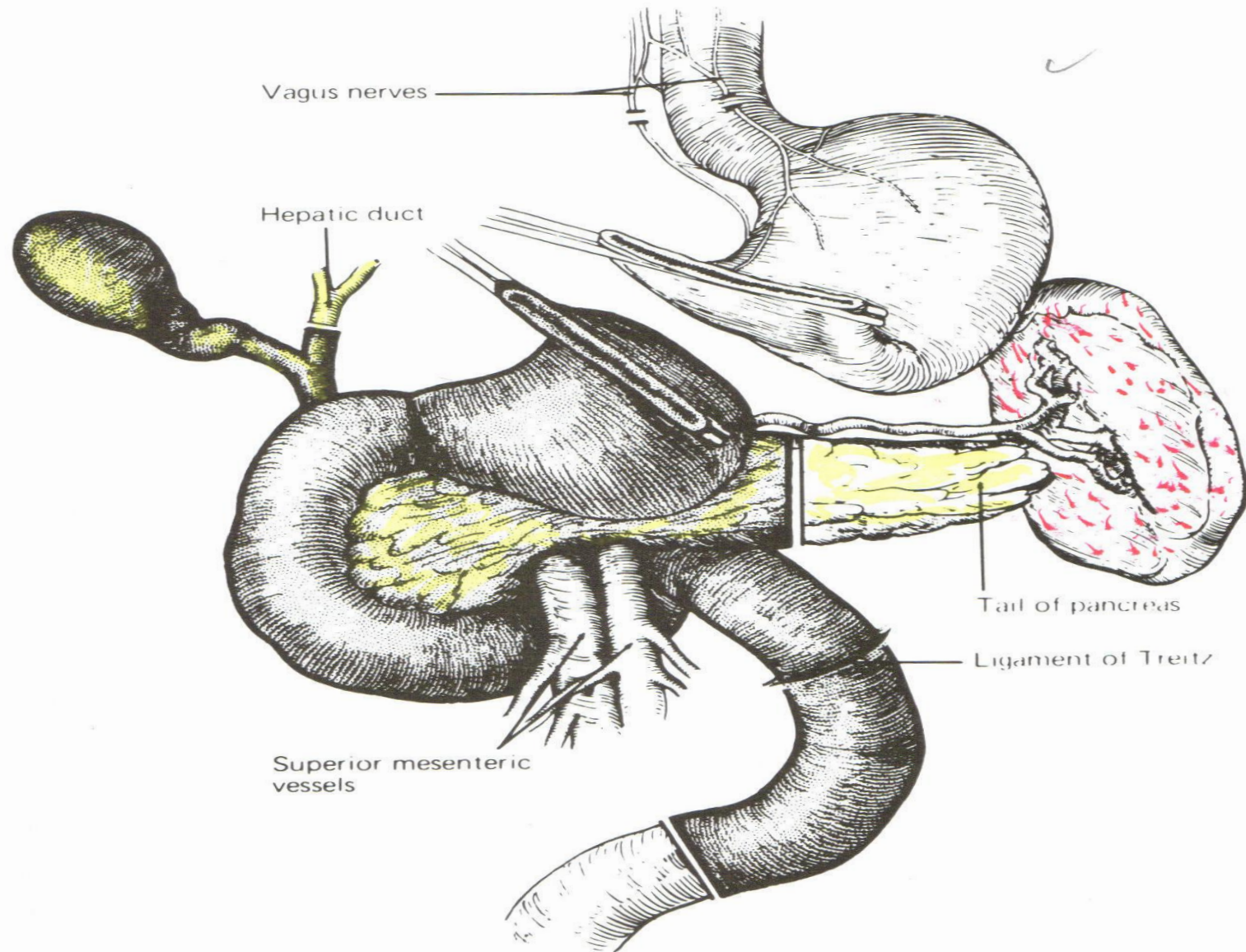
Arteriography

surgical exploration

Treatment :

surgery

Whipple procedure



Endocrine tumors

Benign lesions of islet cell origin include disorders of hyperplasia , and adenoma formation .

insulinoma

Gastrinoma

Glucagonoma

Somatostatin

Water Diarrhea , Hypokalemia , and Achlorhydria

Endocrine tumors

Carcinoid syndrome

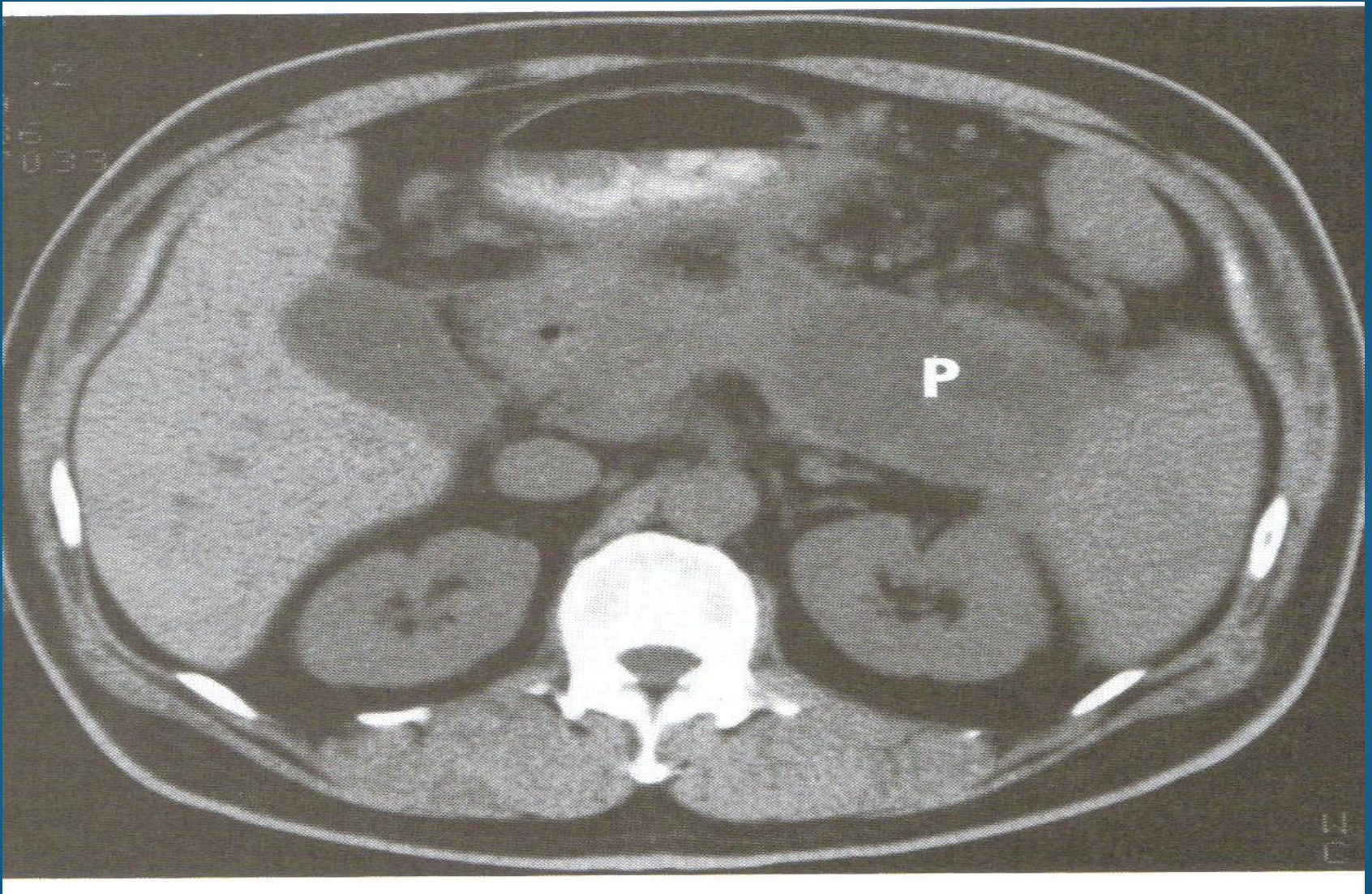
Miscellaneous syndromes

Pancreatic Pseudocysts

pancreatic pseudocysts occur in association with pancreatitis , cholelithiasis , and biliary tract disease , and as a result of blunt abdominal trauma .

clinical manifestations of pancreatic pseudocysts include upper abdominal pain , tenderness , jaundice , and in some cases an epigastric mass . nausea and vomiting may occur . rarely , pancreatic ascites or a pancreatic pleural effusion is present .

Pancreatic Pseudocysts



Pancreatic Pseudocysts

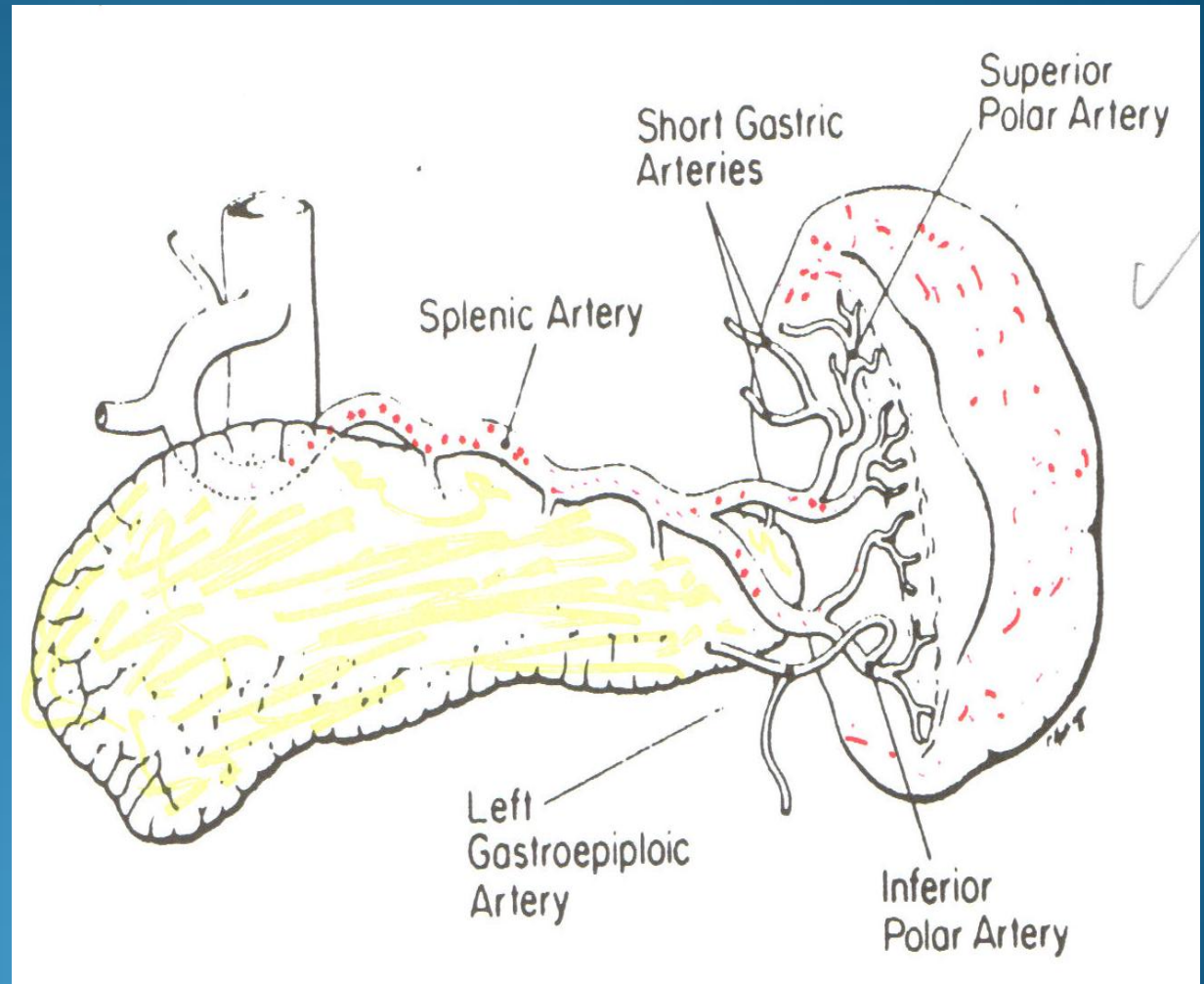
Management:

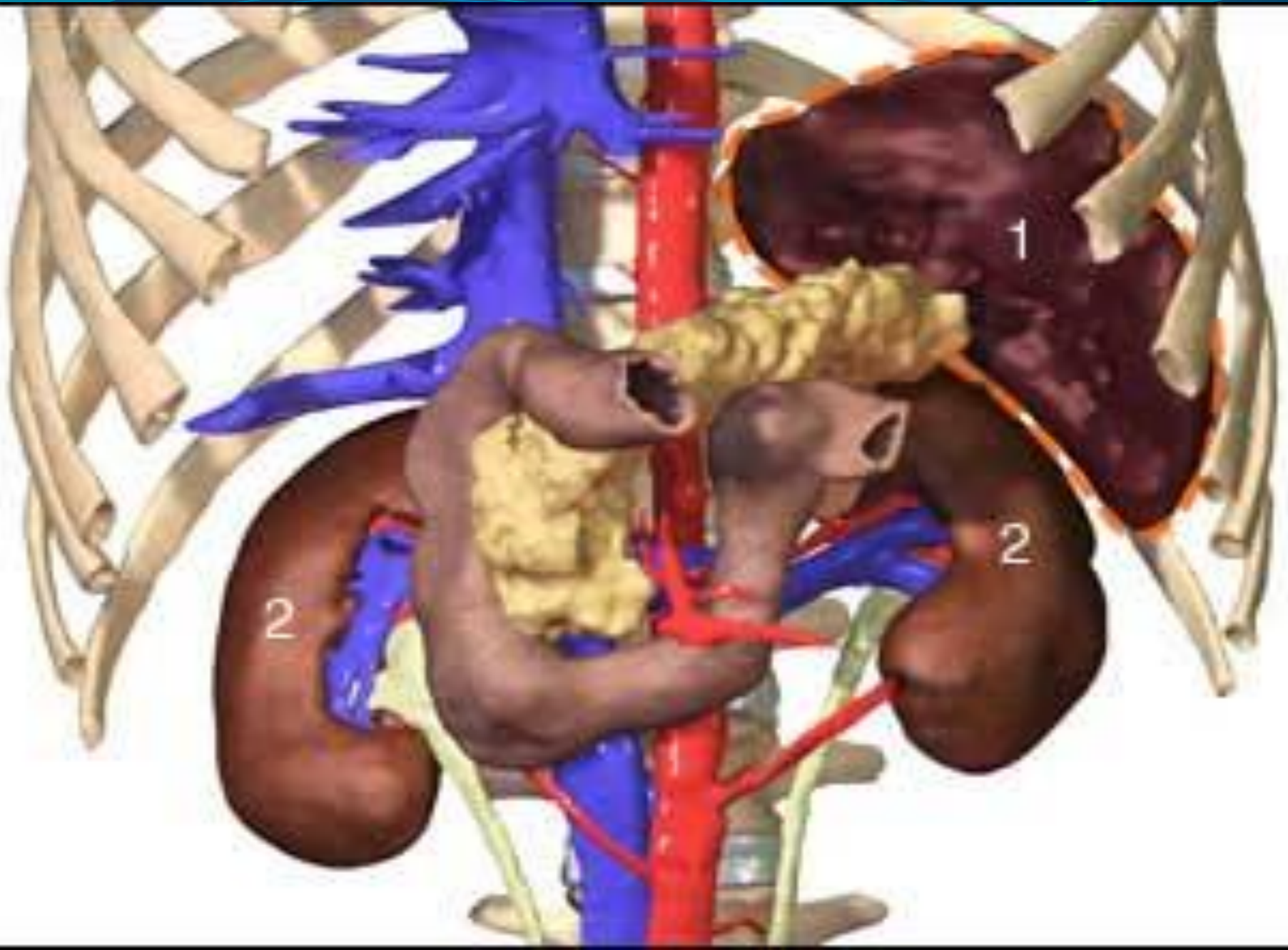
The management of pancreatic pseudocysts has previously been a choice between close observation and surgical drainage.

The spleen

Anatomy

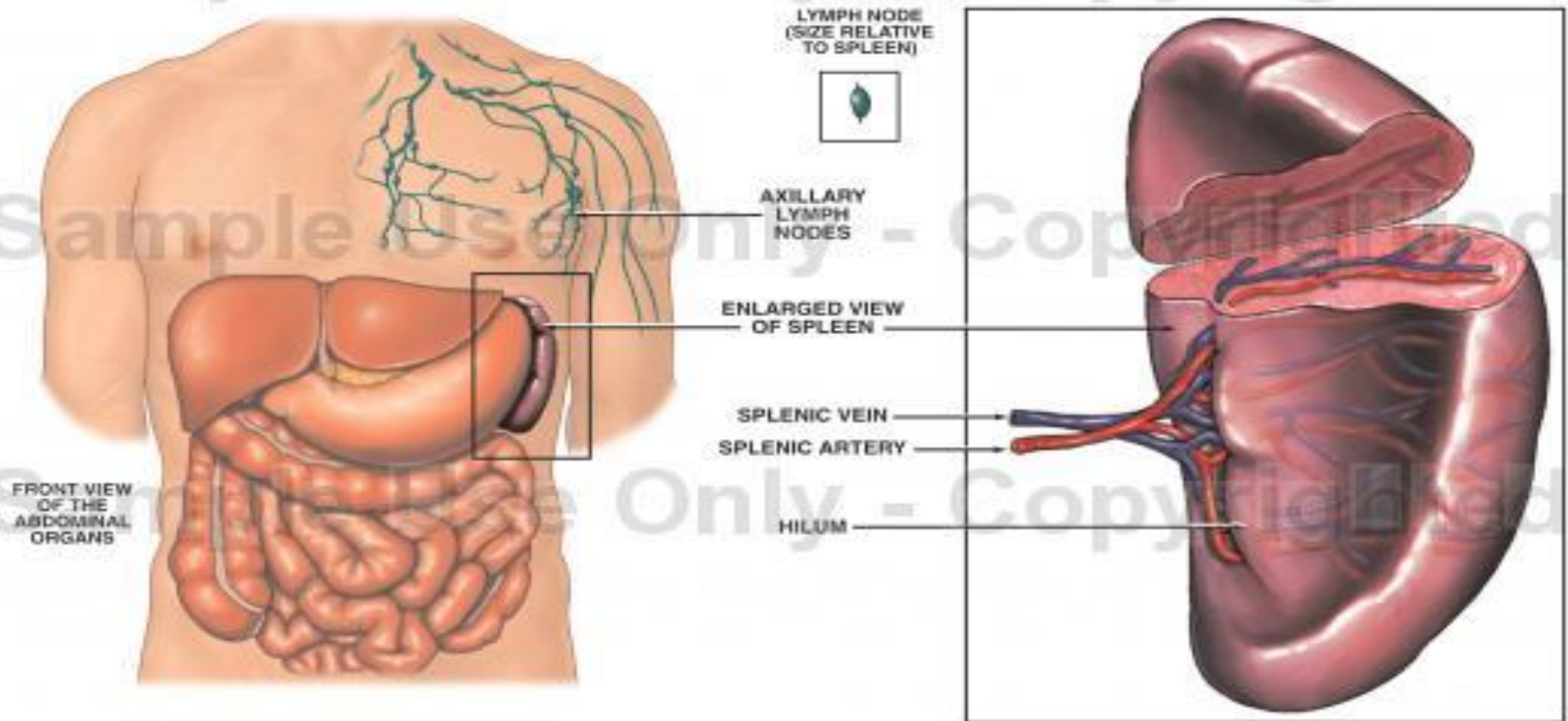
Function





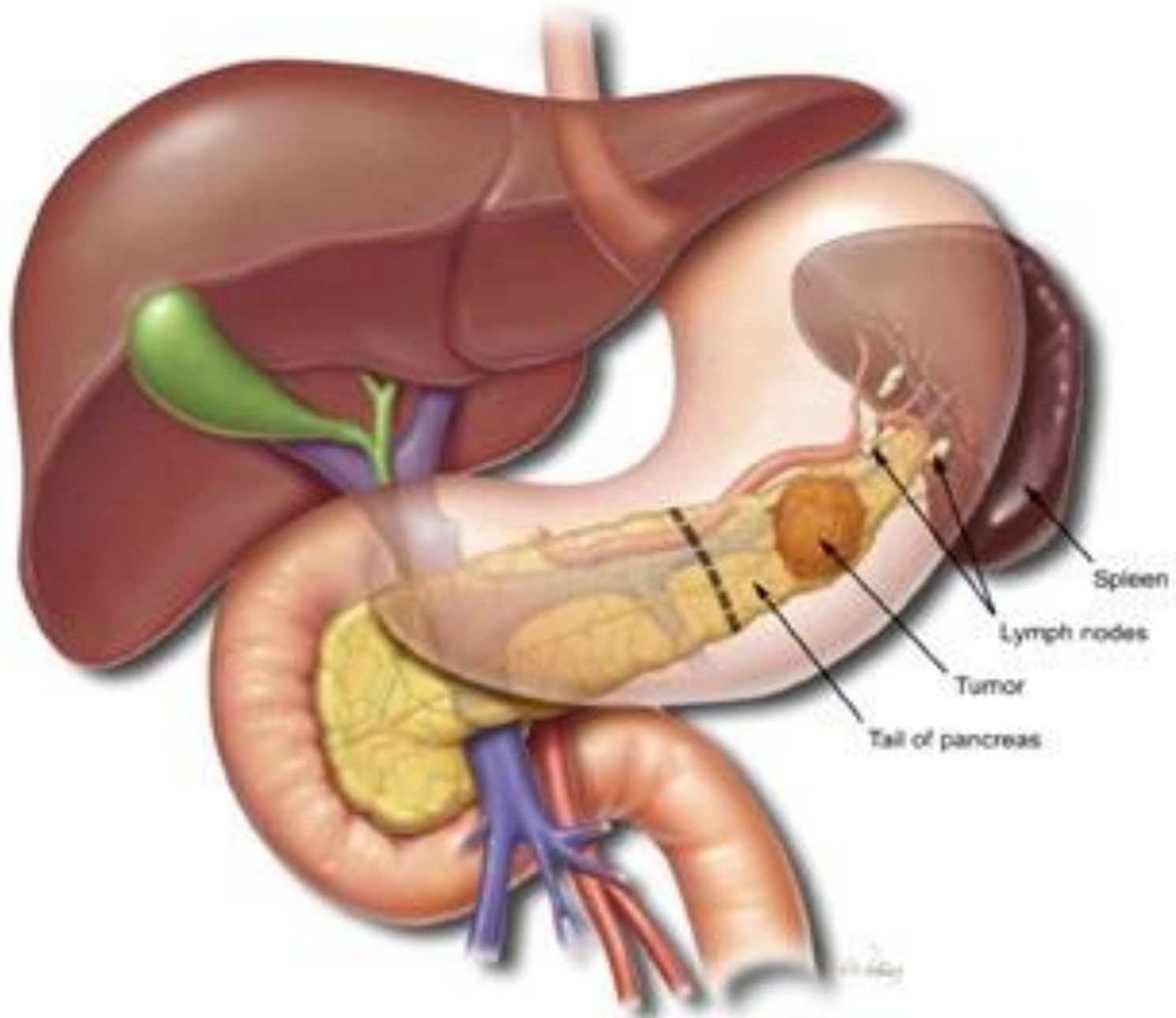
Blood supply

Anatomy of the Spleen

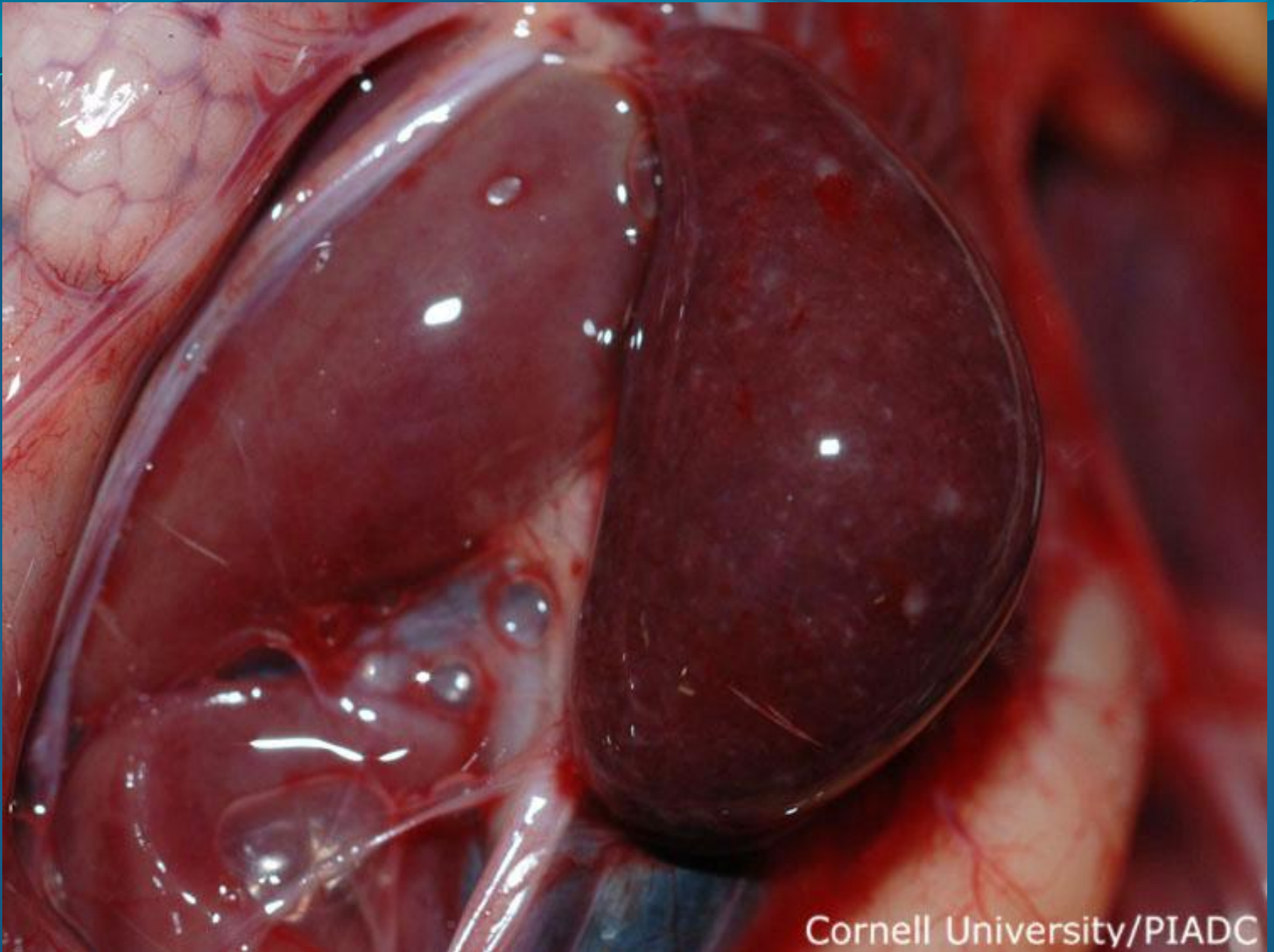


**THE SPLEEN IS THE LARGEST ORGAN IN THE LYMPHATIC SYSTEM.
THE LYMPHATIC SYSTEM IS COMPOSED OF THE SPLEEN,
LYMPH NODES, LYMPH VESSELS AND THE THYMUS GLAND.
THIS SYSTEM HELPS THE BODY TO FIGHT INFECTIONS.**

FRONT VIEW
OF THE SPLEEN

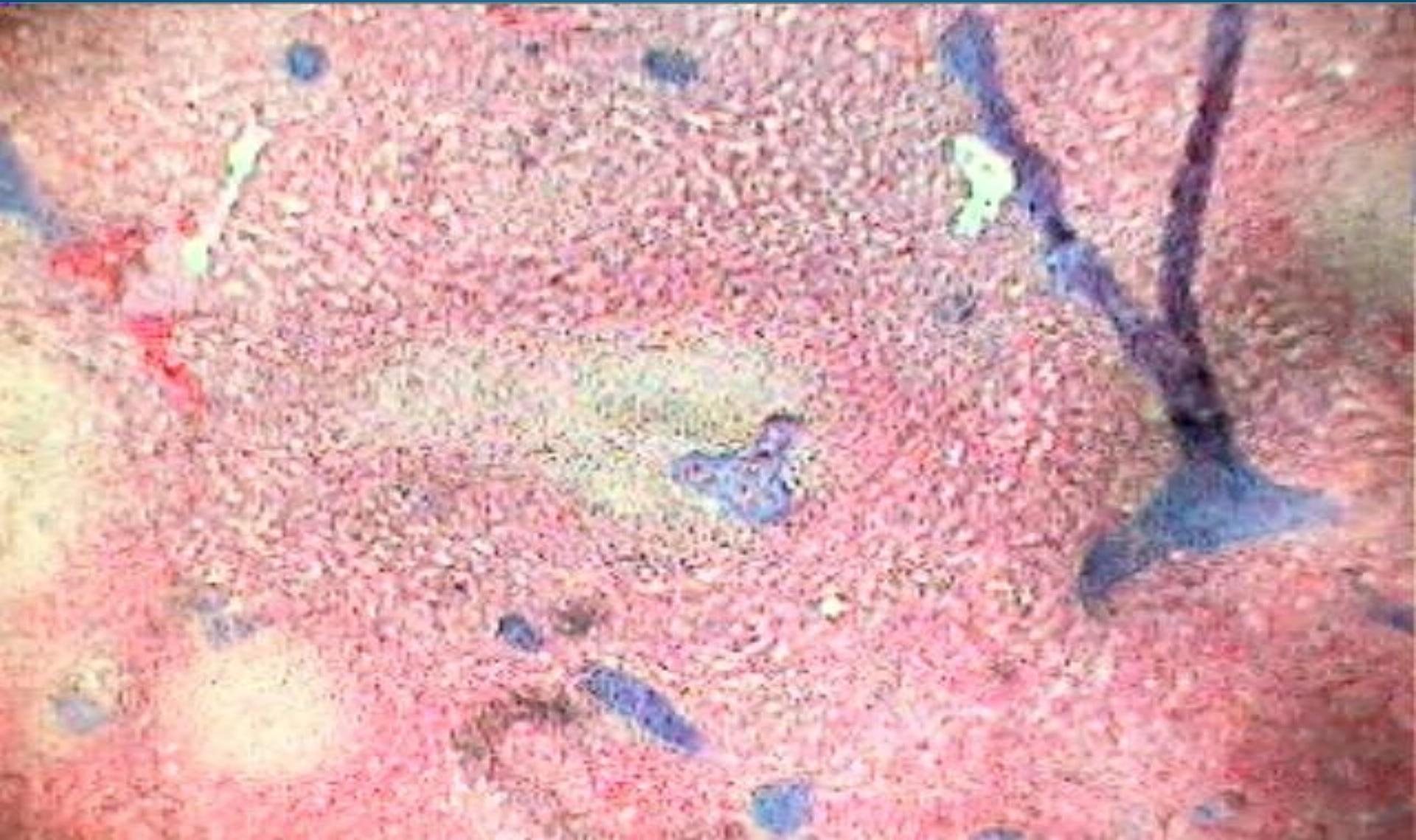


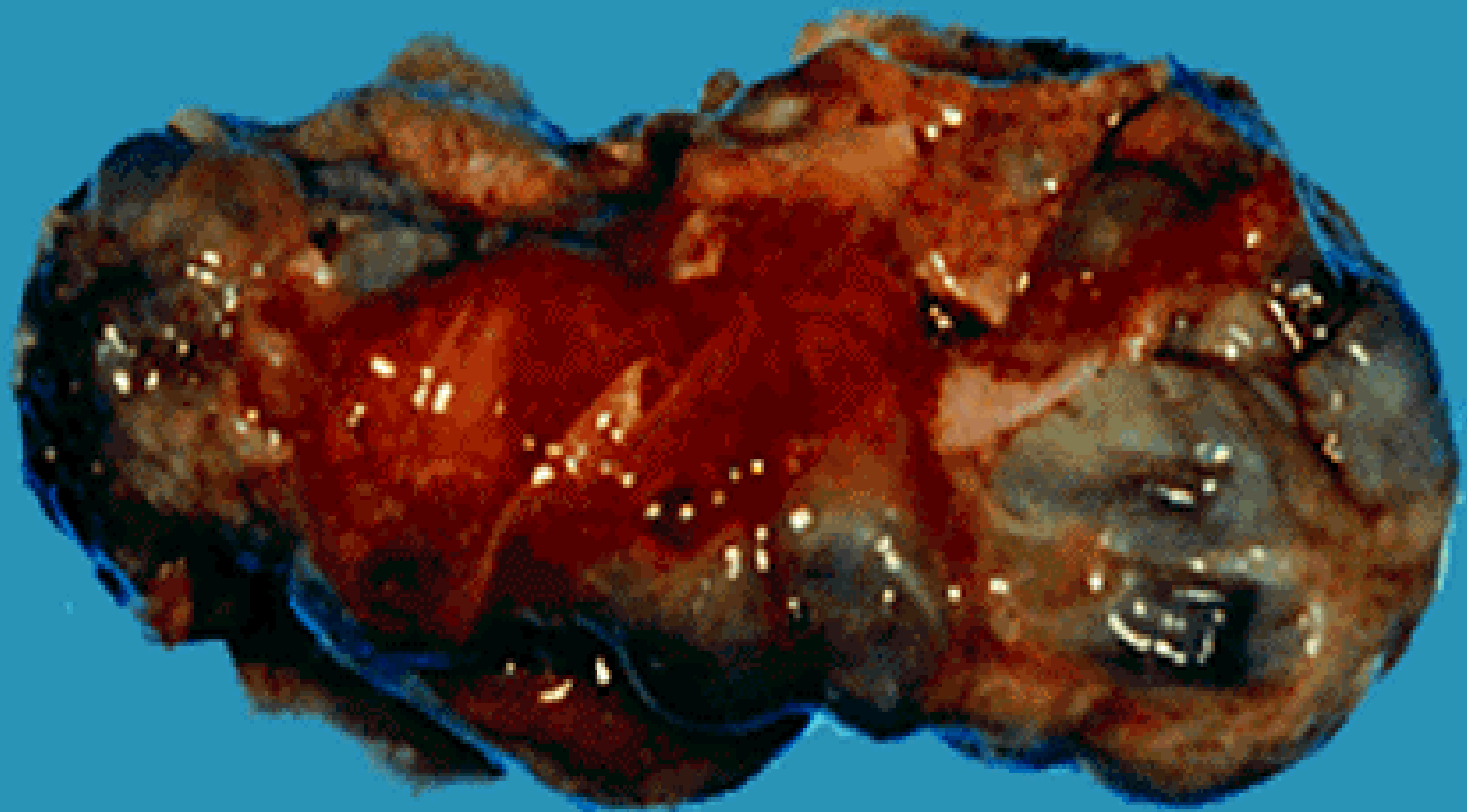




Cornell University/PIADC

histology







splenomegally



Indications for splenectomy

Trauma:

Immune thrombocytopenic purpura :

thrombotic thrombocytopenic purpura:

hypersplenism:

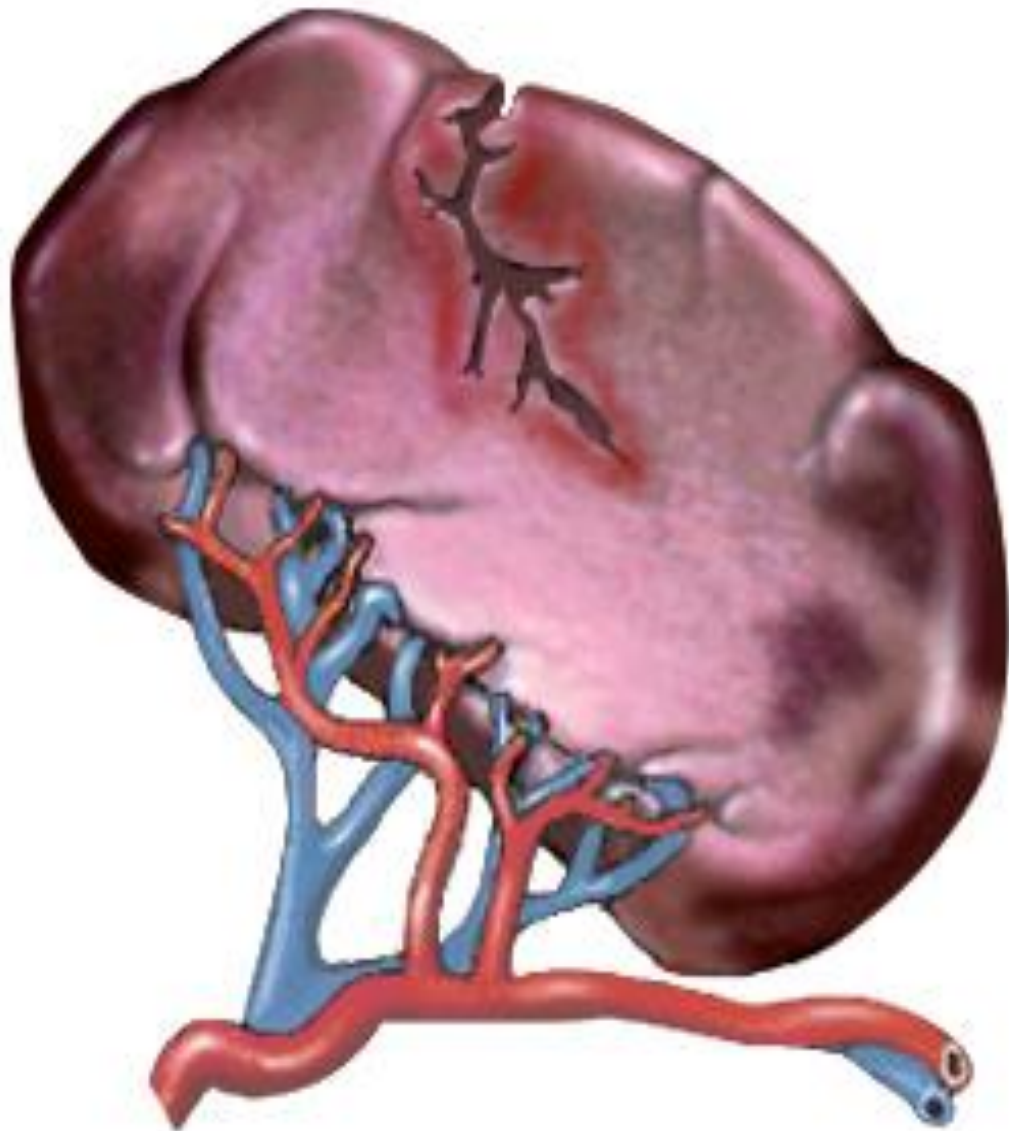
hodgkin's disease:

non hodgkin's lymphoma:

leukemias:

splenectomy for anemia :

Splenic trauma
or disease



NORMAL

VISCERAL
LYMPHOMATOSIS

SPLEEN

HEART

Splenic tumor





Splenic Cysts

Nonparasitic

- Epithelium-lined cysts
- Epidermoid cysts – most common
- Mostly asymptomatic
- Young children + young adults
- LUQ pain, N/V, early satiety
- Dx: CTscan (+)unilocular +/- Ca^{++}
- **Complications**
- Infection, bleeding, rupture
- **Tx: Splenectomy**
- partial

Parasitic

- 5% in US
- Abroad – Hydatid disease
- *Echinococcus granulosus*
- Mostly asymptomatic
- Associated with liver cysts
- If only spleen is involved?
- **Tx: Splenectomy**

Cysts and tumors of the spleen

Tumors of the spleen are rare

most primary cancers are of blood vessel origin , such as the **angiosarcoma , lymphoma**

the splenic capsule is frequently the site of metastases in patients with diffuse intraperitoneal gastrointestinal cancer.

Splenic cysts may be parasitic or nonparasitic

Pseudocysts are found much more frequently than true cysts and are usually the result of splenic infarctions and hematomas.

Cysts and tumors of the spleen

The **symptoms** of all types of splenic cysts are similar , with vague left upper quadrant **pain** predominating due to associated splenomegaly and compression of adjacent abdominal viscera . once the etiology of these cysts has been determined by various radiologic studies , the **treatment** is usually internal surgical drainage . total splenectomy is indicated for most large cysts and those of undetermined etiology .

Postsplenectomy sepsis and other complications

Atelectasis

pancreatitis and subphrenic abscess

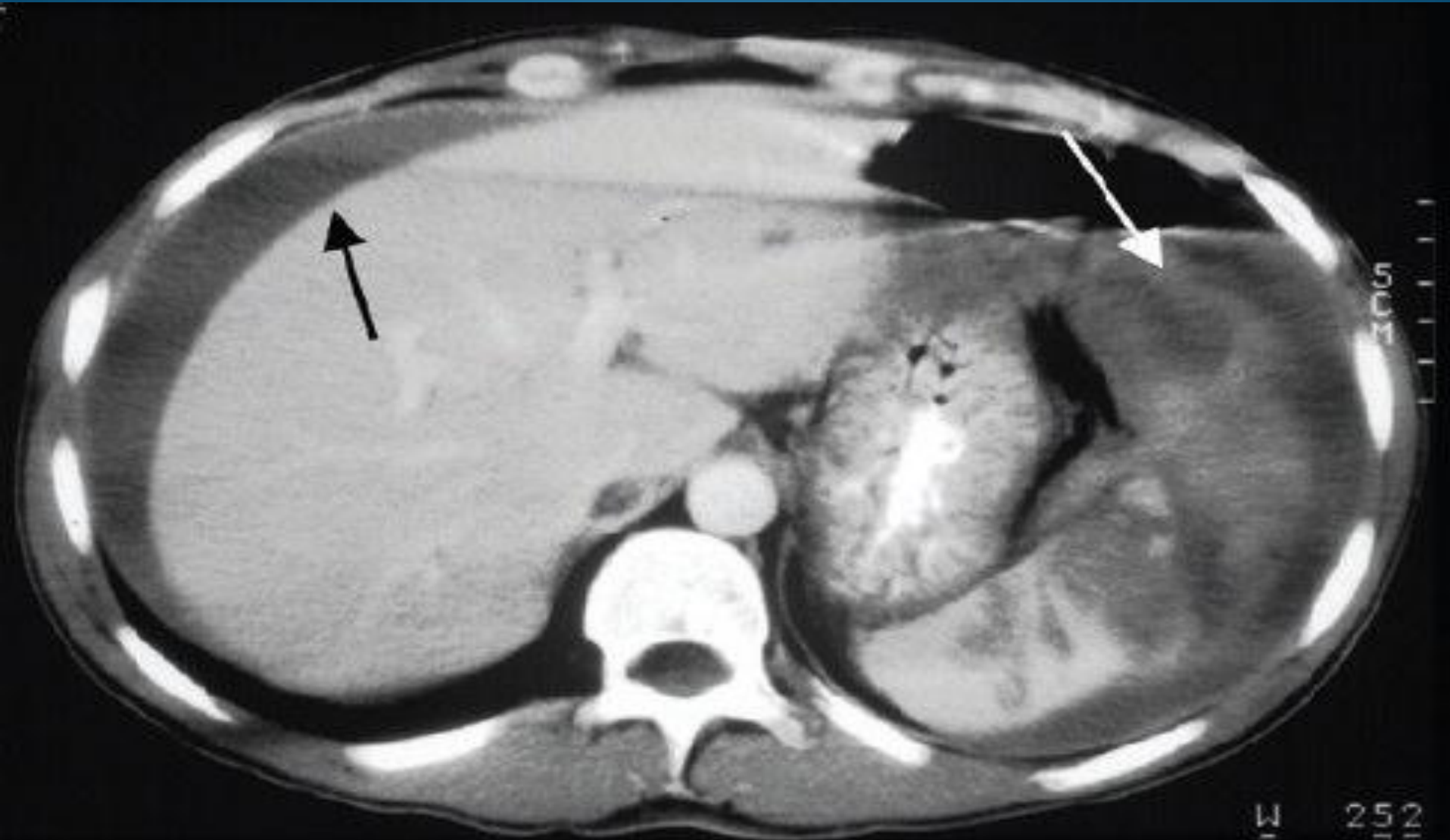
Thrombocytosis

Sepsis

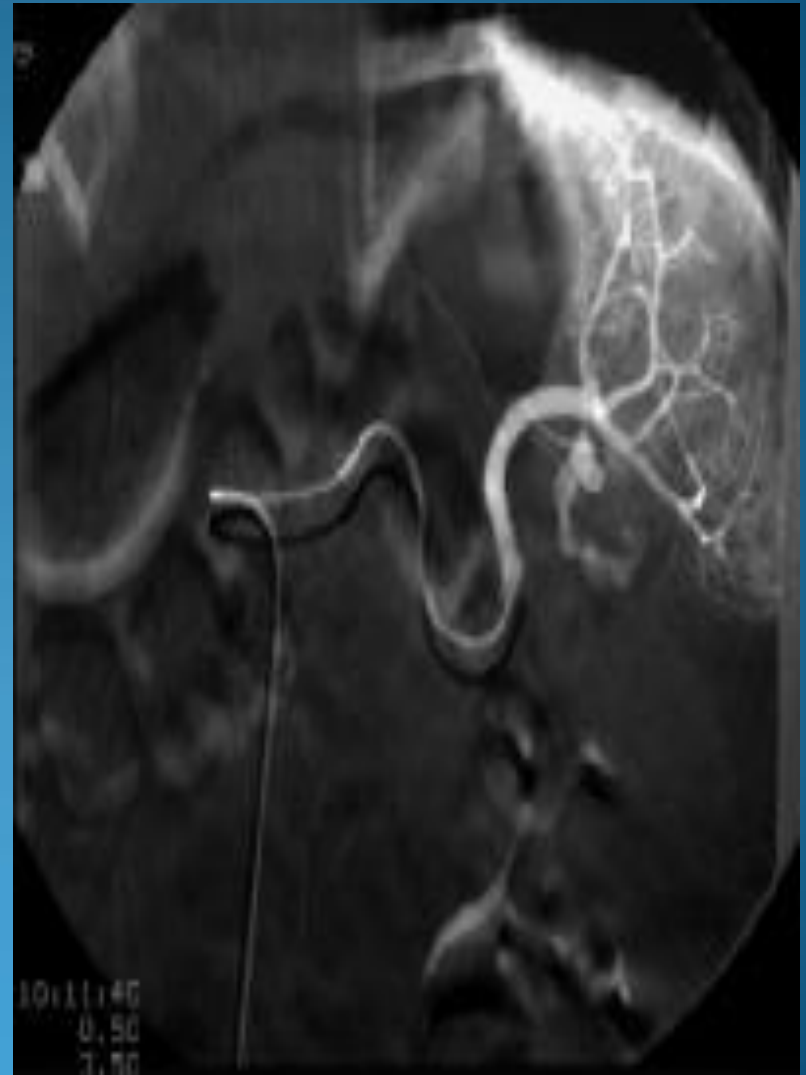
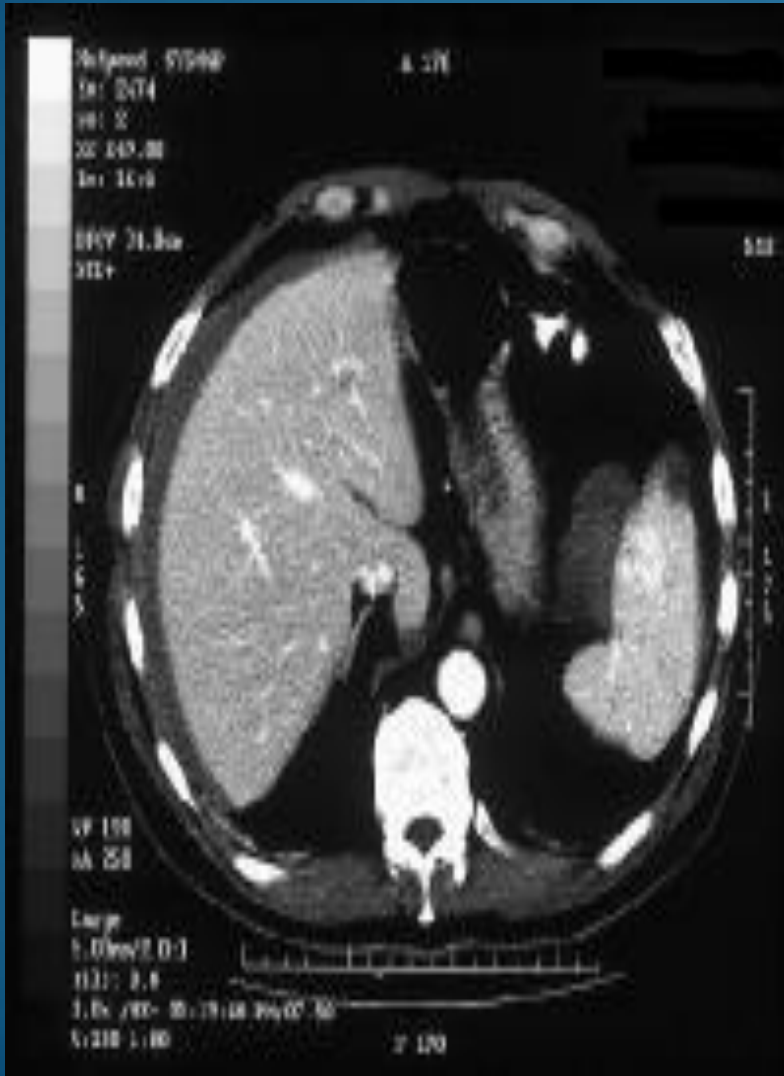
streptococcus pneumoniae occurs in approximately half of patients , with **haemophilus** and **meningococcus** species

A 2- or 3 year course prophylactic antibiotics is usually given to young children following splenectomy to guard against H.influenzae as well as pneumococcus during this very vulnerable period .

CT scan of splenic and liver trauma



CT and Angiogram of splenic vein thrombosis



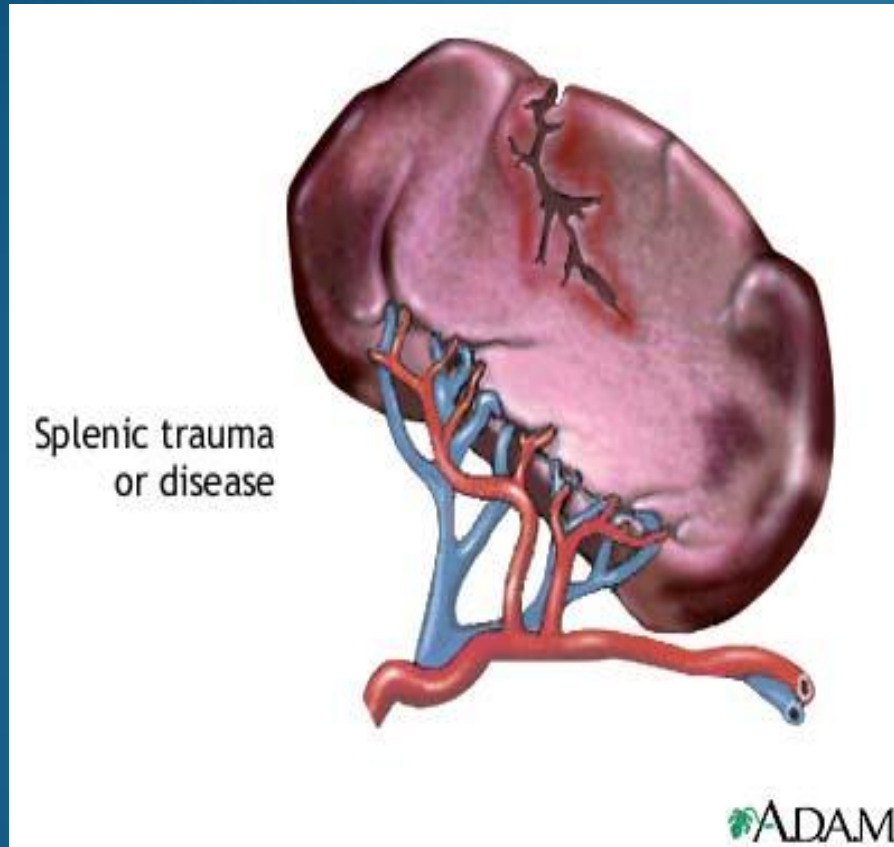
A CT scan was performed and showed a splenic cyst





Nonoperative Management of Splenic Trauma

Indications for initial nonoperative management



hemodynamic stability •

absence of peritonitis •

CT scan •

No contrast extravasation •

absence of other injuries •

Transfusions - >2 PRBC's •

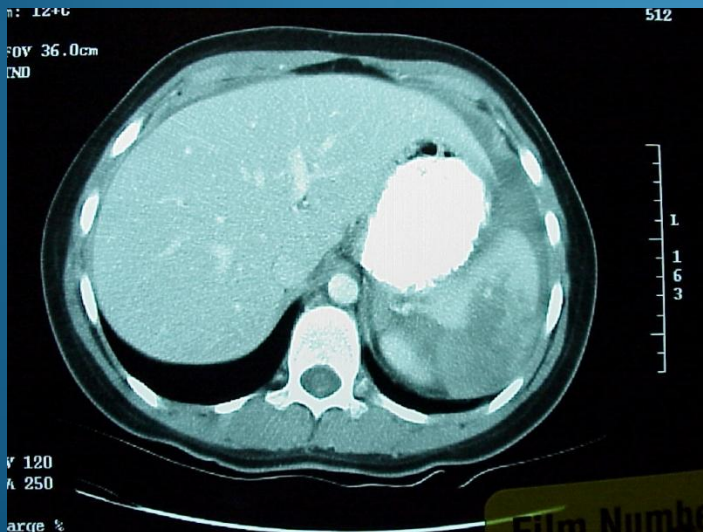
Protocol for Nonoperative Management

Grade I & II

- Awake + alert, isolated injury •
- monitored observation •
- BR, H/H q6h, serial abdominal exams •
- Regular floor in 48^o •
- If remain stable and asymptomatic – D/C in 5 days •
- F/U CT scan in 4 wks •
- Avoid prophylactic and therapeutic heparinization •

Grade III, IV, & V

- Monitored observation x5 days •
- Repeat CT scan •
- Transfer to floor if stable •
- F/U CT scan in 6-8 wks after discharge •

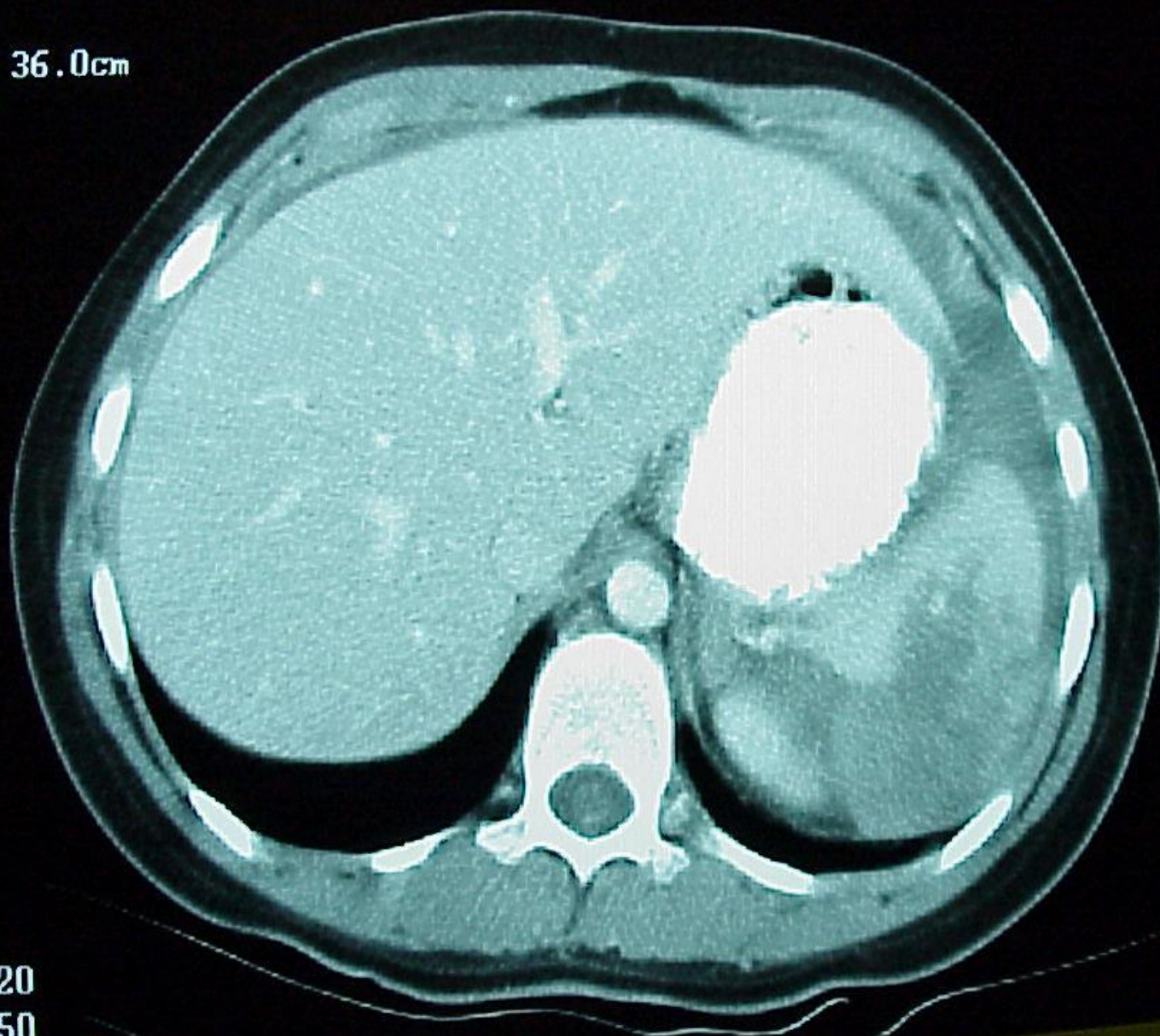


m: 12+0

512

FOV 36.0cm

TND



V 120

A 250

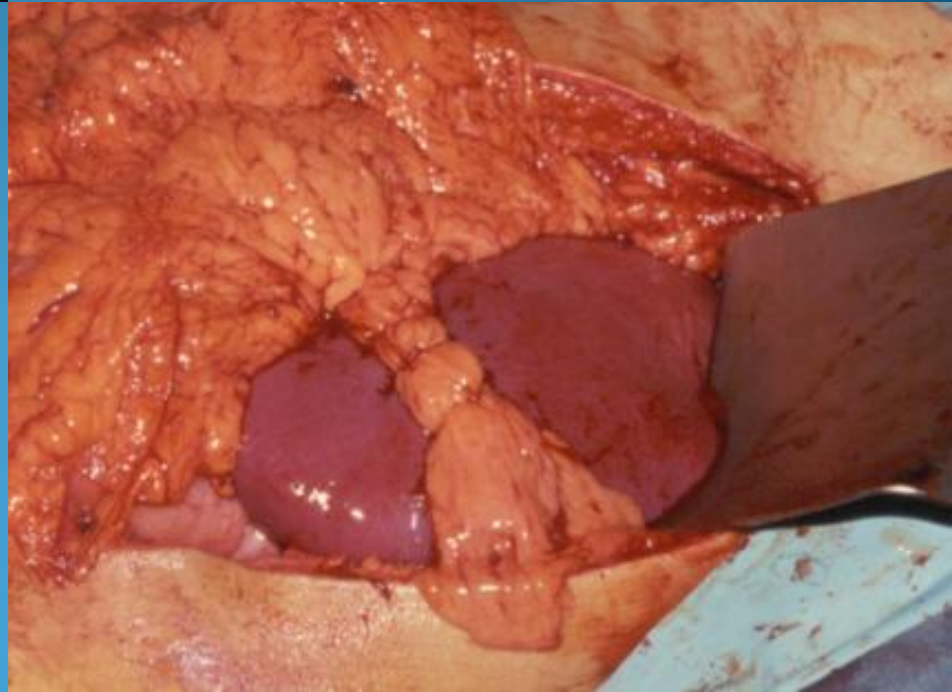
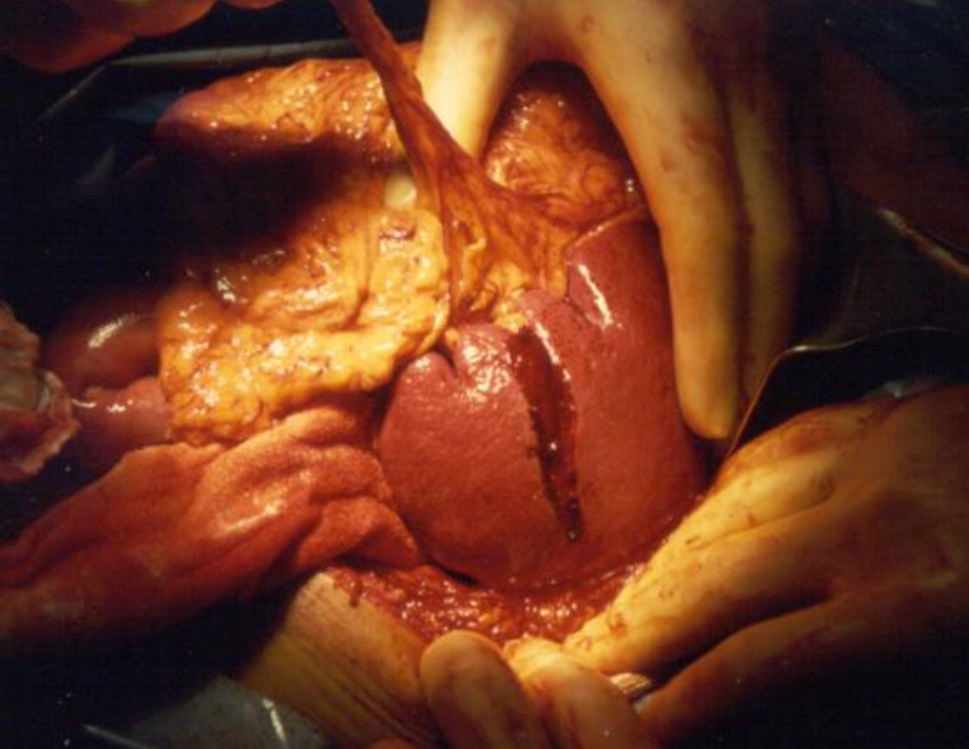
arge %

Film Number

Splenorrhaphy

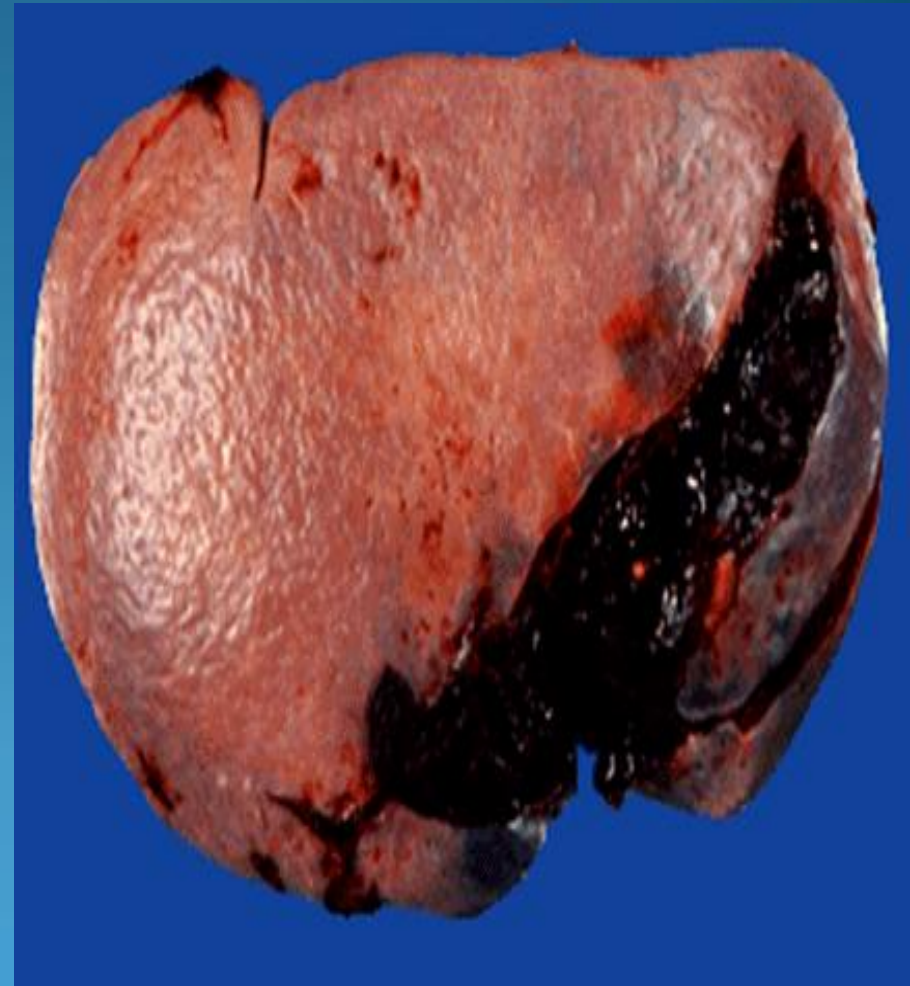
Mesh Splenorrhaphy ●



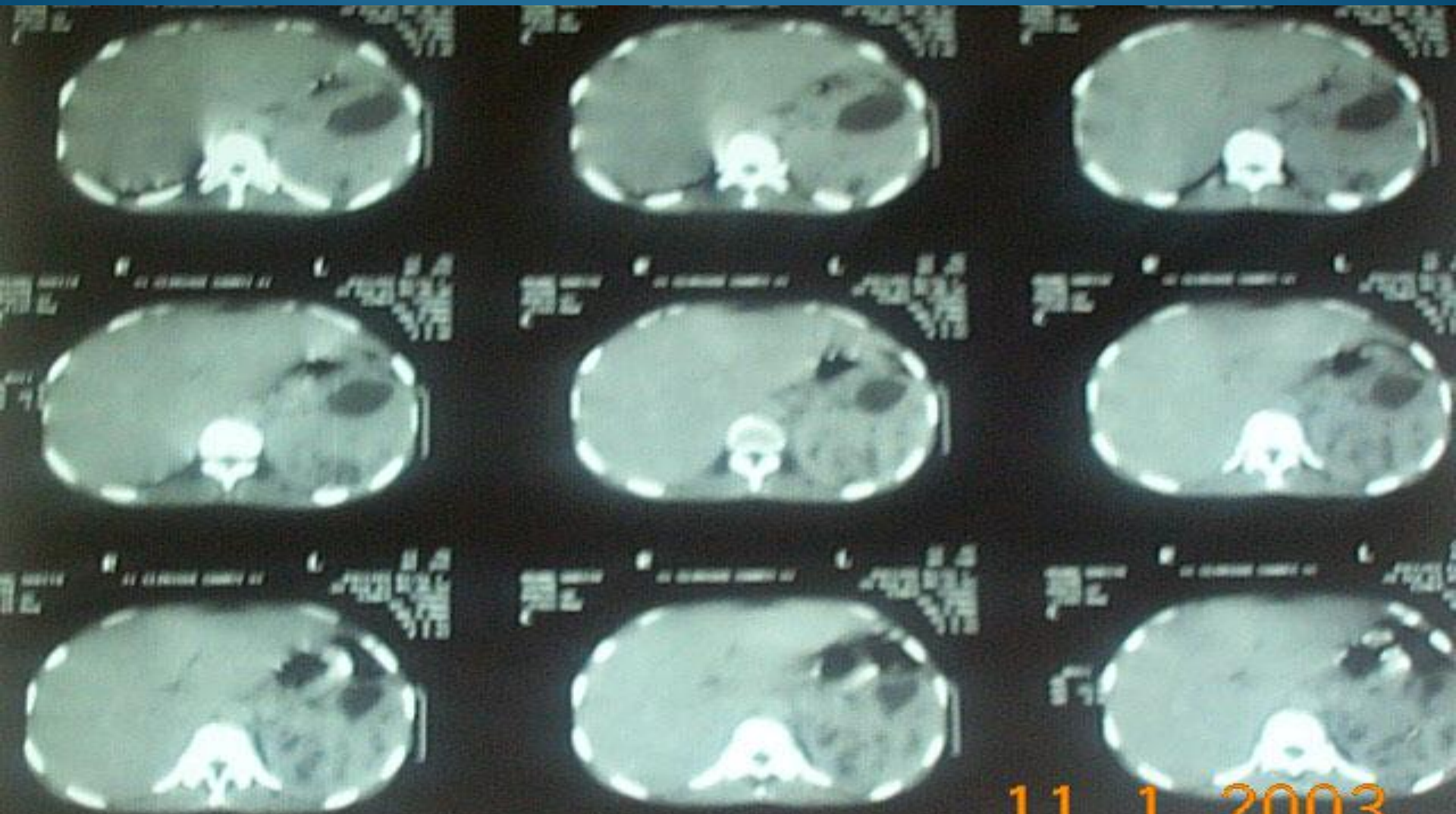


Spleen Laceration

- External lateral view of a spleen.
- Notice the normal slate-gray color of the spleen.
- Towards the right of this specimen, extending from the very top diagonally across to the bottom of the specimen, is a large tear in the capsule of the spleen, exposing the pulp.
- Splenic lacerations are common in automobile accidents and are particularly common if the spleen has undergone enlargement due to some reason.



CT scan of splenic abscess



11. 1. 2003

THANK YOU

