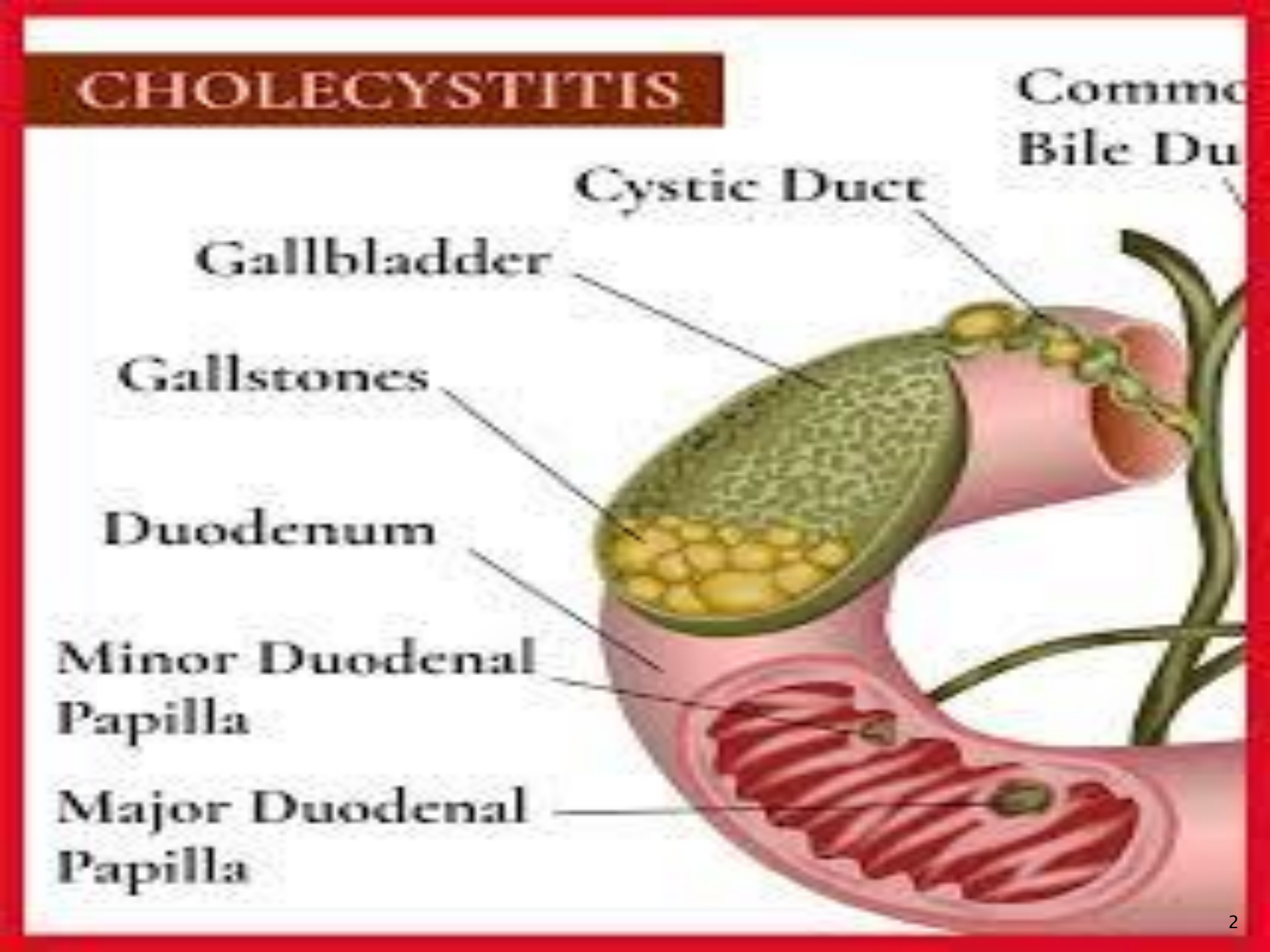
- **Cholecystitis**
- (chole= bile, cyst= bladder, itis=inflammation)
- It is defined as the inflammation of gallbladder.
- It is relatively common disease.

CHOLECYSTITIS



Types of cholecystitis

Chronic cholecystitis:

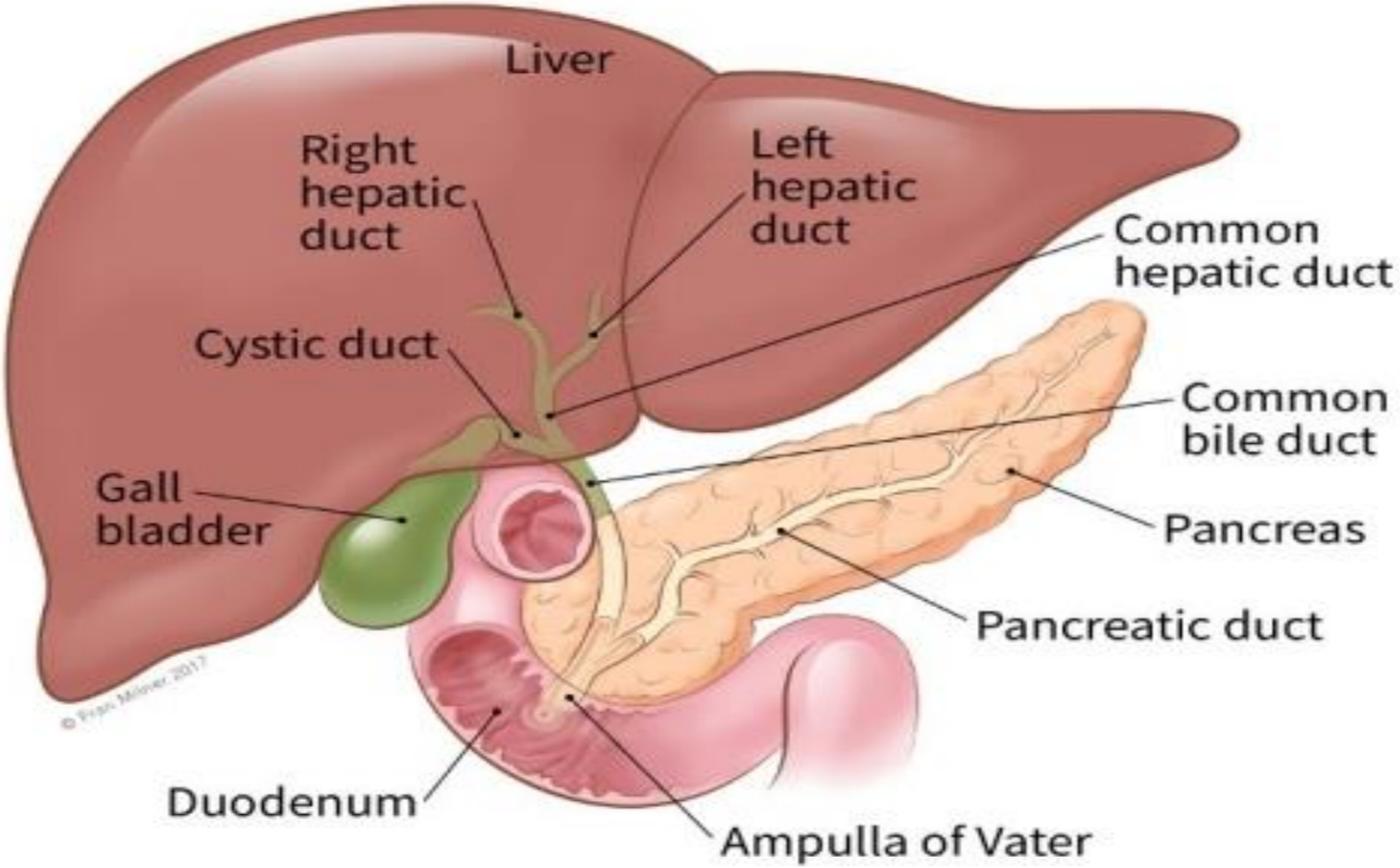
- Chronic cholecystitis appears to predispose an individual to develop gallstones.

- **Acute cholecystitis:**

- If gallbladder is the site of preexisting chronic inflammation.

- **Types of tumors:**

- 1. primary liver cancer originates in the tissues of the liver itself.
- 2. Metastatic liver cancer occurs when cancer cells spread from other parts of the body, most commonly from the stomach, pancreas, breast or lung.


Liver
Right hepatic duct
Left hepatic duct
Common hepatic duct
Cystic duct
Common bile duct
Gall bladder
Pancreas
Pancreatic duct
Duodenum
Ampulla of Vater

- Benign proliferation in persistent hepatocyte nodules represents the first autonomous proliferation.

- This is the first step in the formation of true cancer.

- **Liver Tumors:**

- **1. Hepatocellular adenoma:**
- hepatoma frequently occurs as a single nodular, sometimes pedunculated formation of large sizes, reaching over 15 cm in diameter.

- Color is lighter
- it can be light brown or yellowish.
- Cells are not significantly differentiated from the normal aspect, being arranged in short cords, irregular tubes which causes hepatocytes to be enlarged and rounded.

- The nuclei of these cells are large, vesicular, and the fine chromatin is disseminated uniformly, with obvious nucleoli.

- Mitoses are absent, but 2–3 nucleoli frequently appear.

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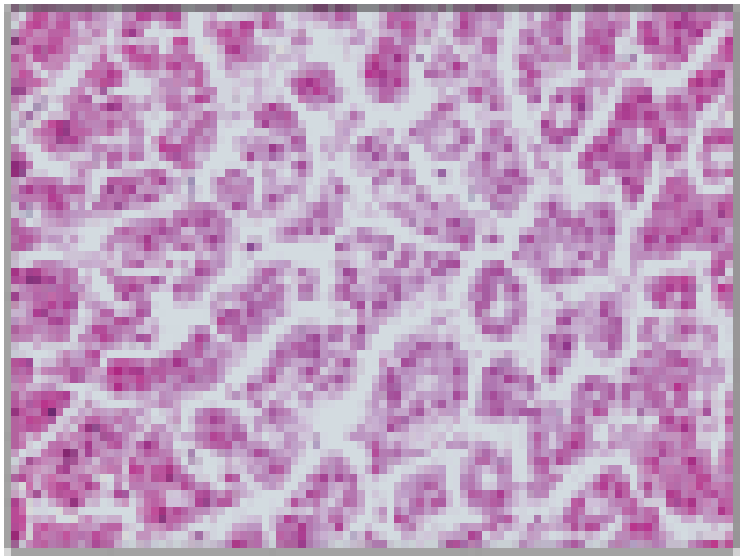


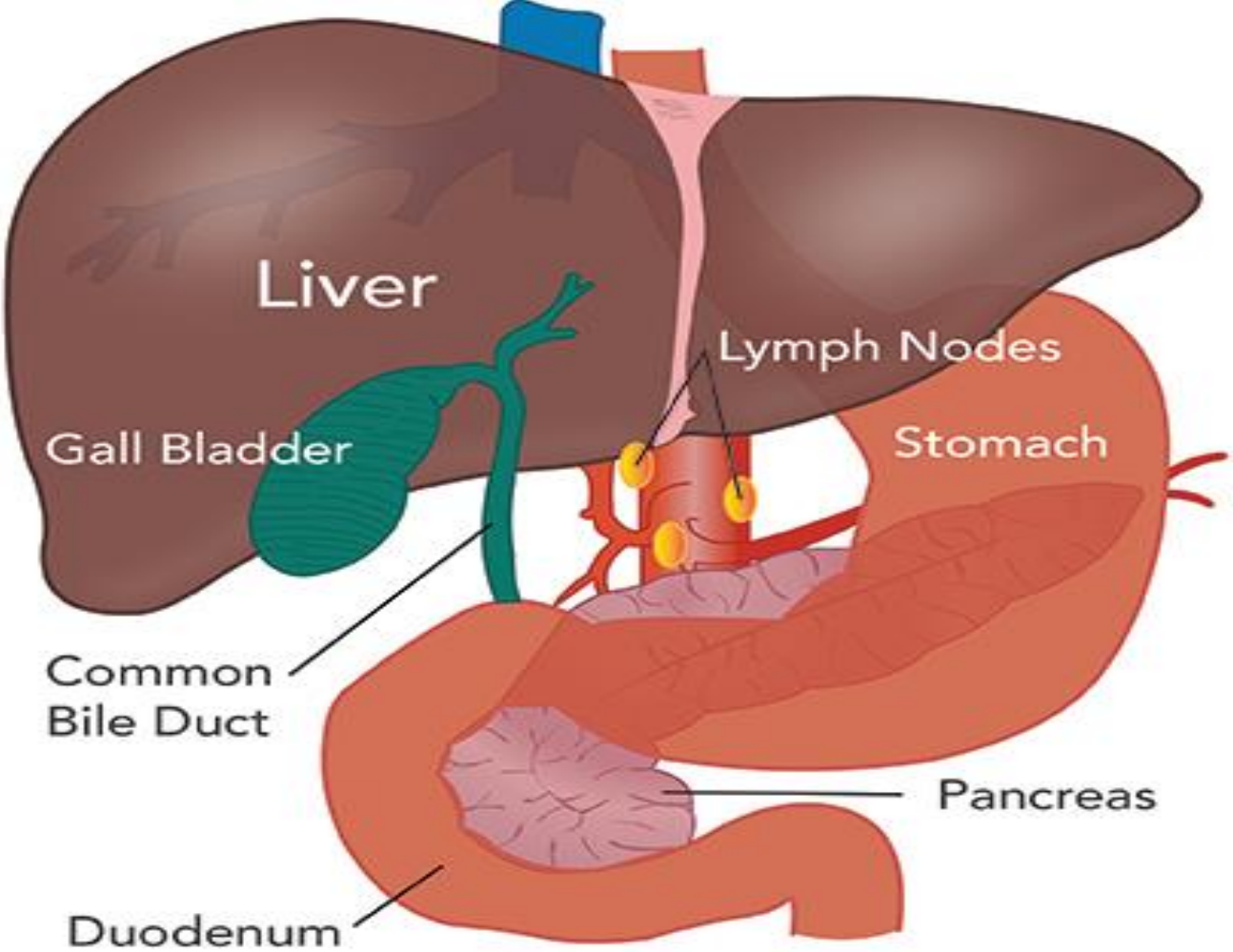
Hepatocellular adenoma, trabecular type

Hepatocellular adenoma, acinar type

Stage I
Only one tumor in the liver

Stage II
Only one tumor, which has grown into blood vessels, or multiple tumors, none more than 5 centimeters (cm) across

Stage III
Multiple tumors, at least one more than 5 cm or growing into the portal vein, hepatic vein, a nearby organ other than the gallbladder, or the outer covering of the liver



Stage IV
Cancer that has spread to nearby lymph nodes or other parts of the body

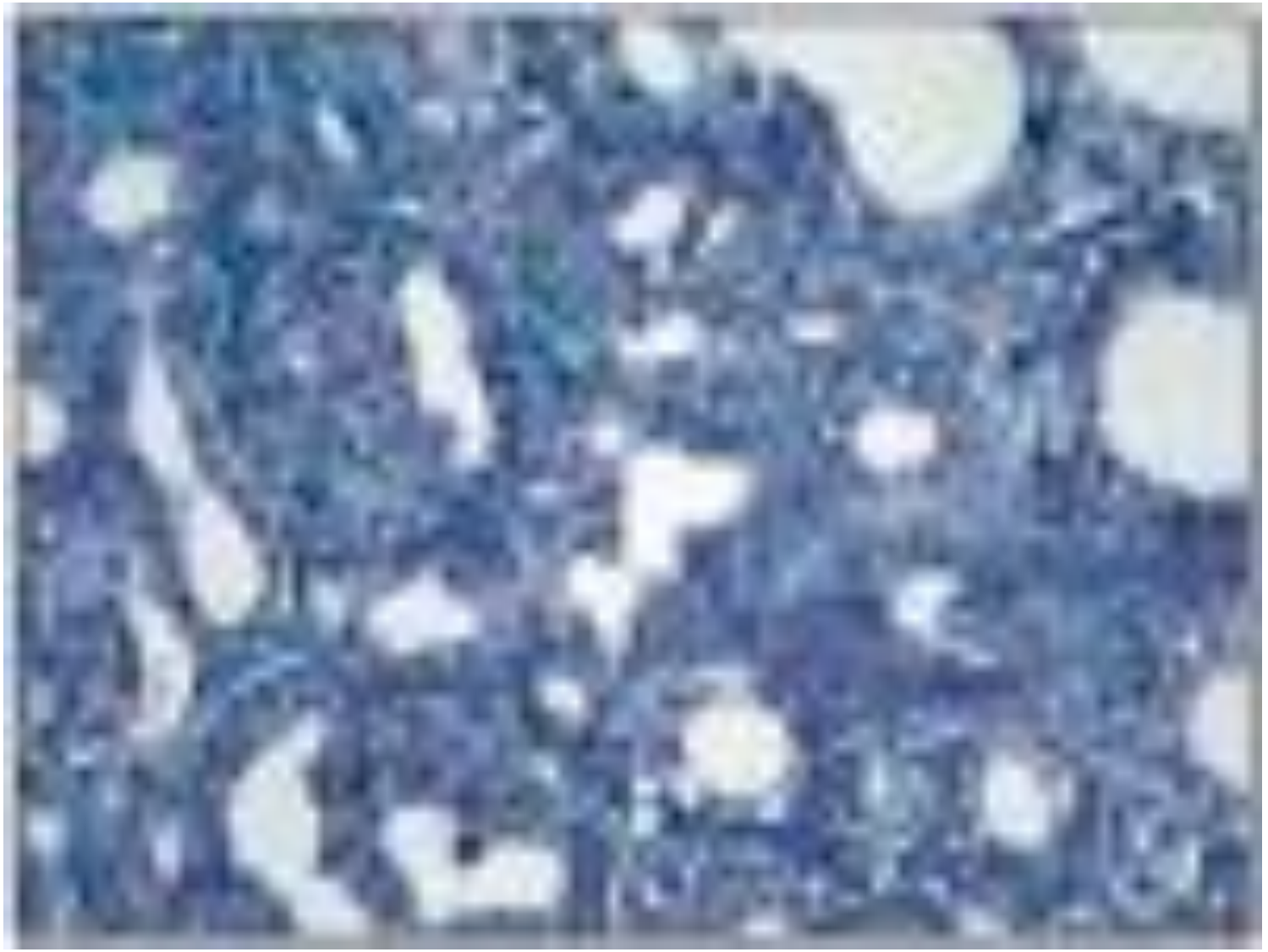
- **2. Biliary adenoma:**

- Benign duct bile tumors, cholangiocellular adenomas or cystadenomas, appear as nodular formations, with a cavernous aspect and little bile.

- Cystadenomas are formed by bile ducts with anarchic arrangement, prismatic or atrophied epithelium due to the mucoid bile content.

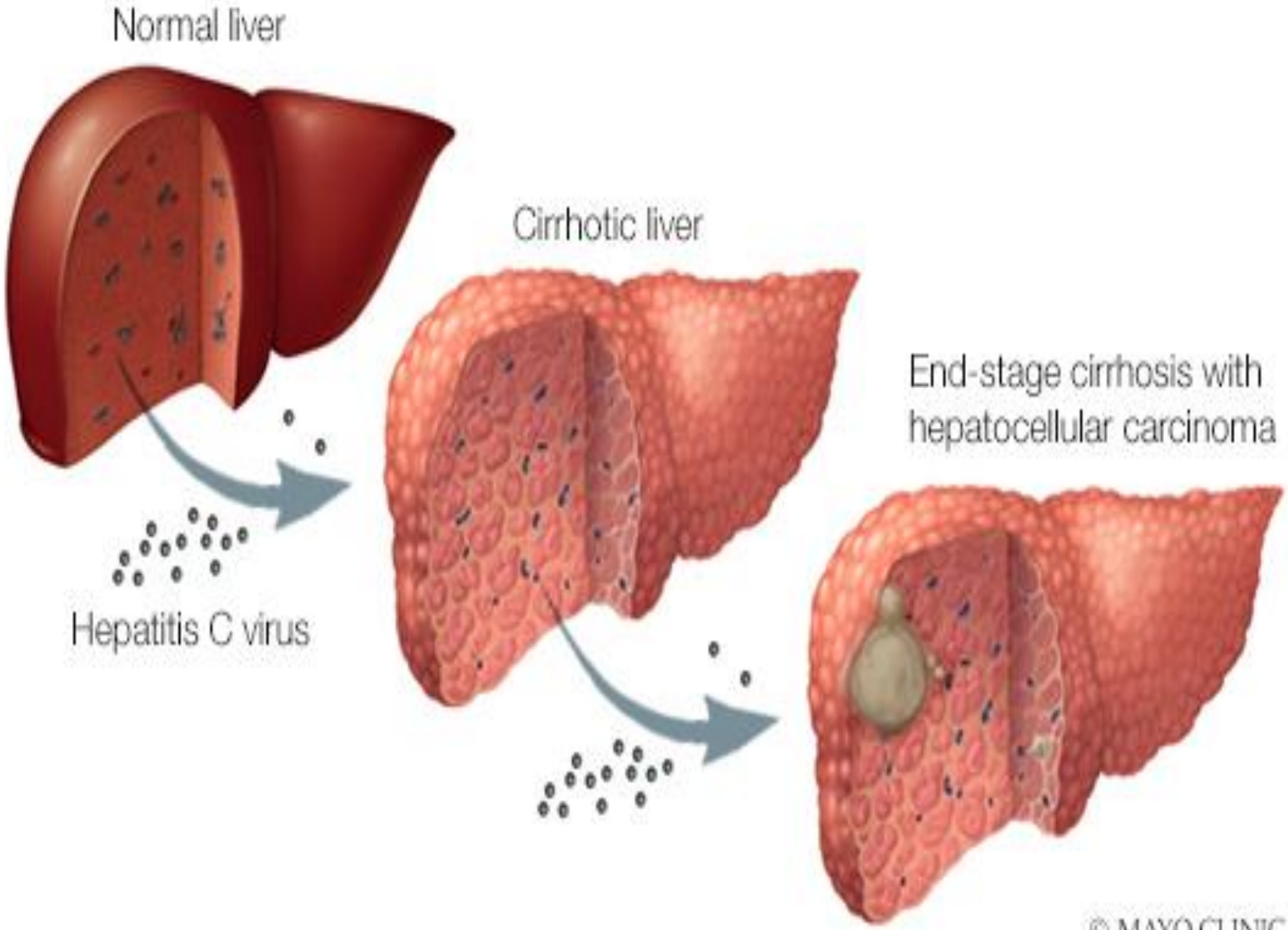
- The connective stroma is generally fine, possibly with fibrosis images.

Fig. Cholangiocellular adenoma.



- **3. Hepatocellular carcinoma:**
- In hepatocellular carcinoma, the neoplasm appears as a single or multiple nodular formation.
- sometimes, around a large tumor that can exceed 25 cm in diameter.

- Hepatocellular carcinoma has distinct margins, in section its surface is red-cherry, yellow-greenish, with necrotic or necrotic hemorrhagic foci.
- Sometimes, the neoplasm is encapsulated, and the connective tissue penetrates the tumor mass under the form of septa.


Normal liver
Cirrhotic liver
End-stage cirrhosis with hepatocellular carcinoma
Hepatitis C virus
© MAYO CLINIC

- **4. Hemangioma:**

- Hemangioma is a benign tumor of vascular origin, having variable sizes that can reach several centimeters in diameter.

- In most cases, nodules are multiple, more rarely solitary.

- **5. Hemangiosarcoma:**

- Hemangiosarcoma is a malignant tumor, known as angiosarcoma or hemangioendothelioma.

- The neoplasm has an infiltrative growth, and in section there is little connective stroma, which makes it particularly fragile.

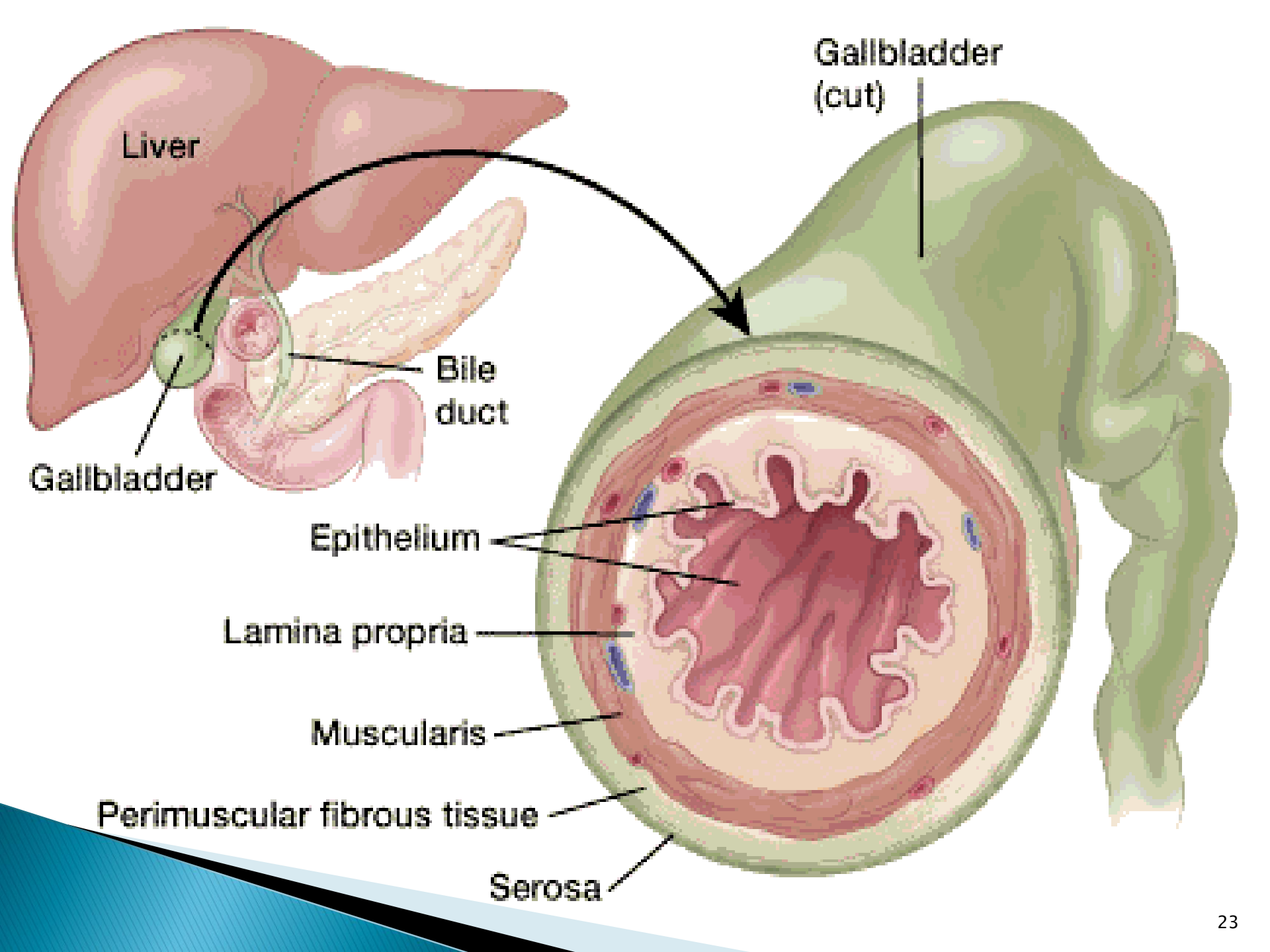
- **6. Sarcoma:**

- Sarcoma, is a primary liver tumor

- The tumor is large, solitary, arising in the interstitial connective tissue of the liver.

- **Tumors Of Gallbladder**
- **1. Adenoma:**
- Adenoma appears under the form of nodules of variable sizes, ranging from several millimeters to 0.5–1 cm in diameter, on the gall bladder surface. Nodules are shiny, fragile, with a slightly rough surface, yellow to red or gray.
- Adenomas may have a papilliferous character, when epithelium is cubic or prismatic.

- There are three types of adenocarcinomas of the gallbladder.
- non papillary adenocarcinoma
- papillary adenocarcinoma
- mucinous adenocarcinoma
- Only about 6 out of every 100 gallbladder cancers (6%) are papillary adenocarcinomas.
- They develop in the tissues that hold the gallbladder in place (connective tissues). This type of gallbladder cancer is less likely to spread to the liver and nearby lymph nodes.


Gallbladder
(cut)
Liver
Bile
duct
Gallbladder
Epithelium
Lamina propria
Muscularis
Perimuscular fibrous tissue
Serosa

2. Squamous cell cancer:

Squamous cell cancers develop from the skin like cells that form the lining of the gallbladder, along with the gland

3.Sarcoma:

Sarcoma is the name for a cancer that affects the supportive or protecting tissues of the body, also called the connective tissues. A cancer that begins in the muscle layer of the gallbladder is called a sarcoma.

- **4.Lymphoma and melanoma:**

- These are extremely rare types of gallbladder cancer.

- They are not necessarily treated in the same way as the other types. For example, lymphomas tend to respond well to chemotherapy and radiotherapy.

- So it is very unlikely that you would have surgery to treat a lymphoma.

- **Treatment:**
- Three types of standard treatment are used:
- Surgery
- Radiation therapy
- Chemotherapy