

# **Diseases of the liver and the biliary tract**

 迎

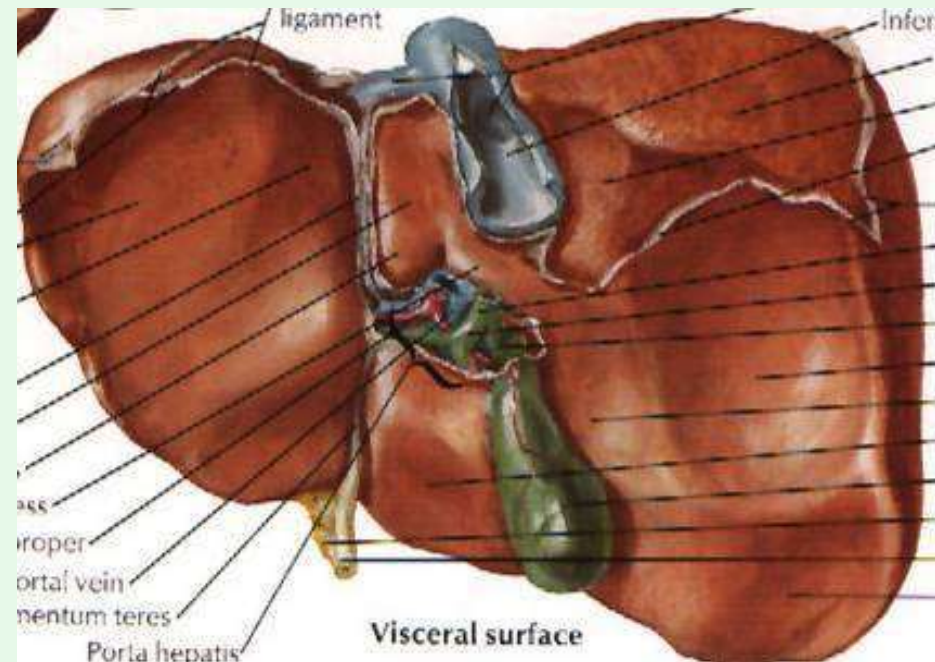
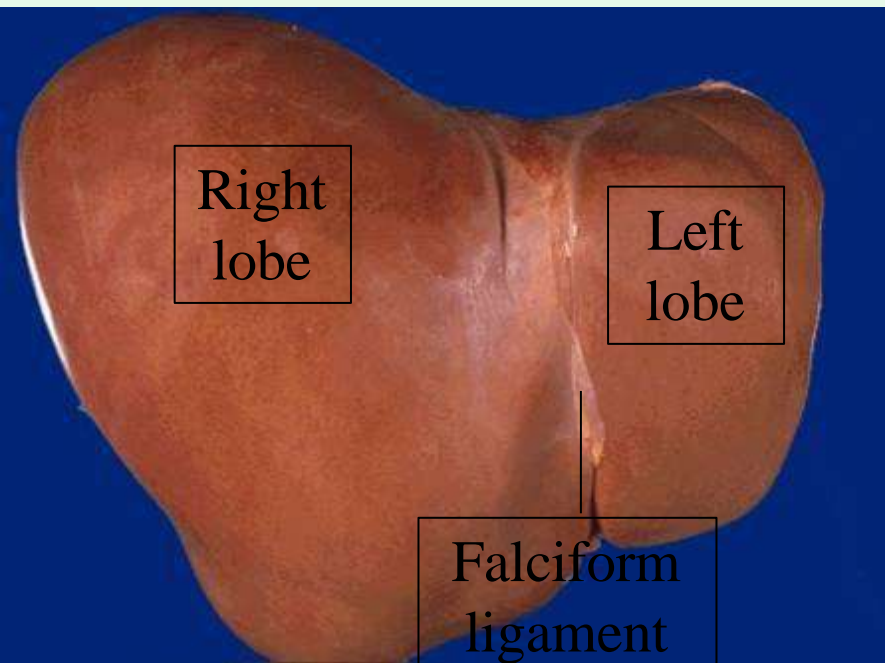
**Dept. of Pathology  
School of Basic Medical Sciences  
Peking University**

# The liver and the biliary tract

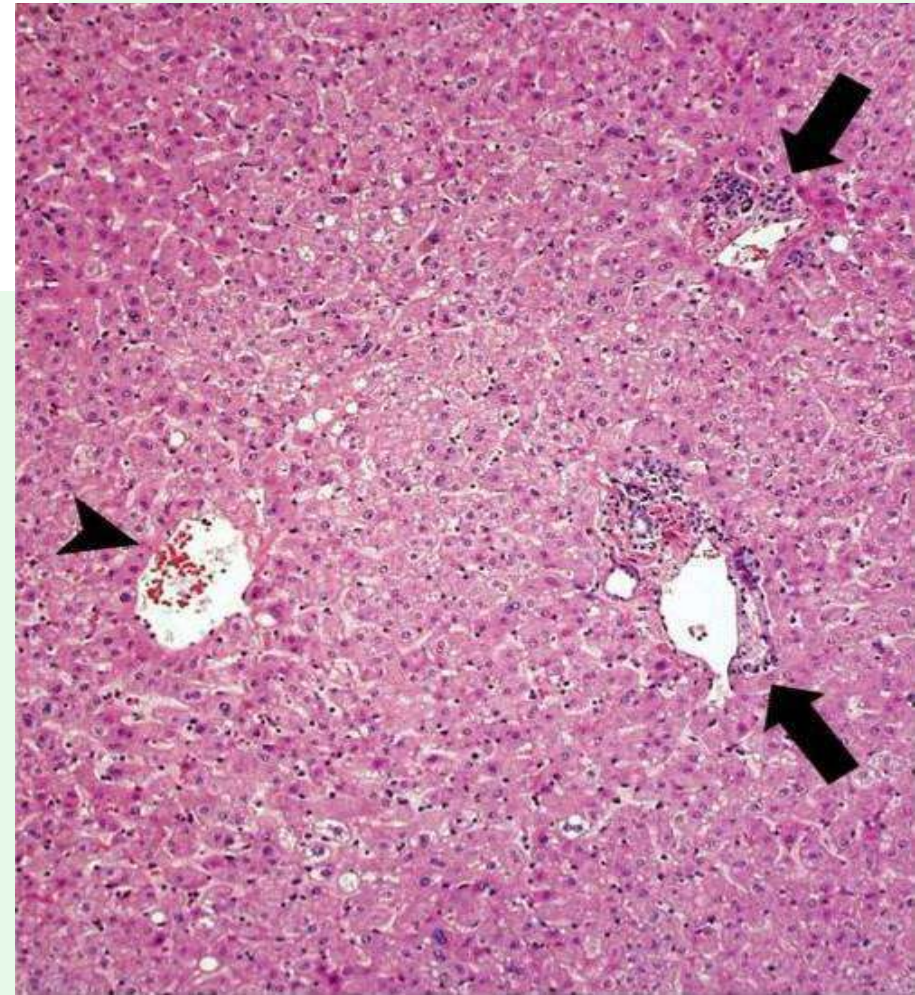
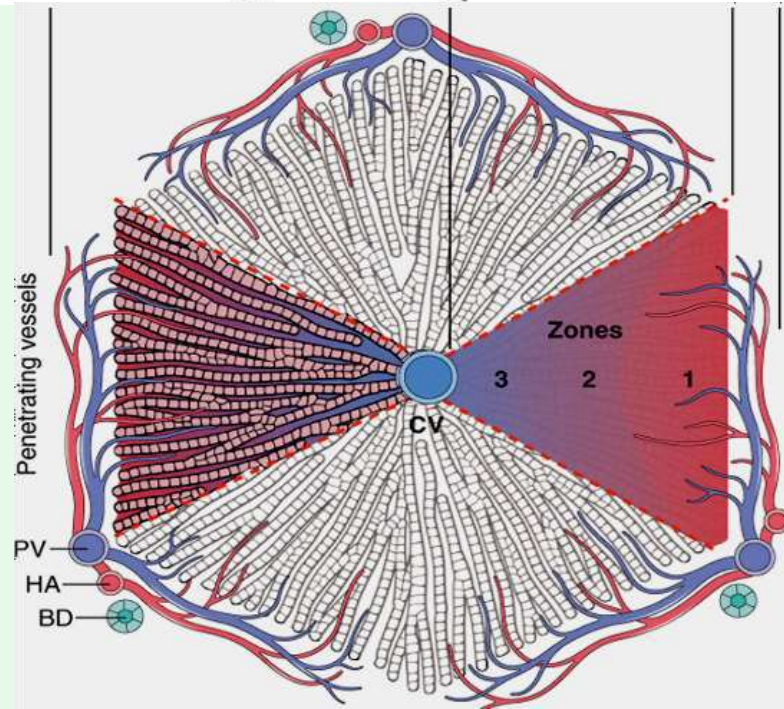
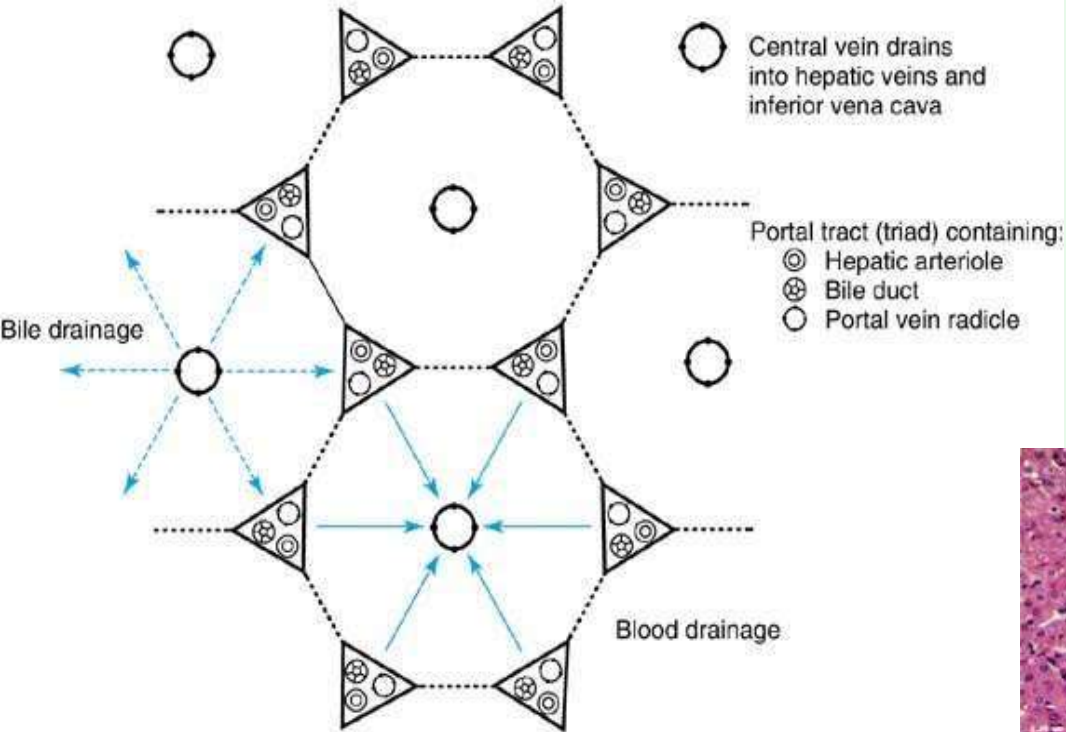
- ◆ **Viral hepatitis**
- ◆ **Alcoholic liver disease**
- ◆ **Cirrhosis**
- ◆ **Portal hypertension**
- ◆ **Primary carcinoma of the liver**
- ◆ **Cholecystitis**
- ◆ **Cholelithiasis (gallstones)**

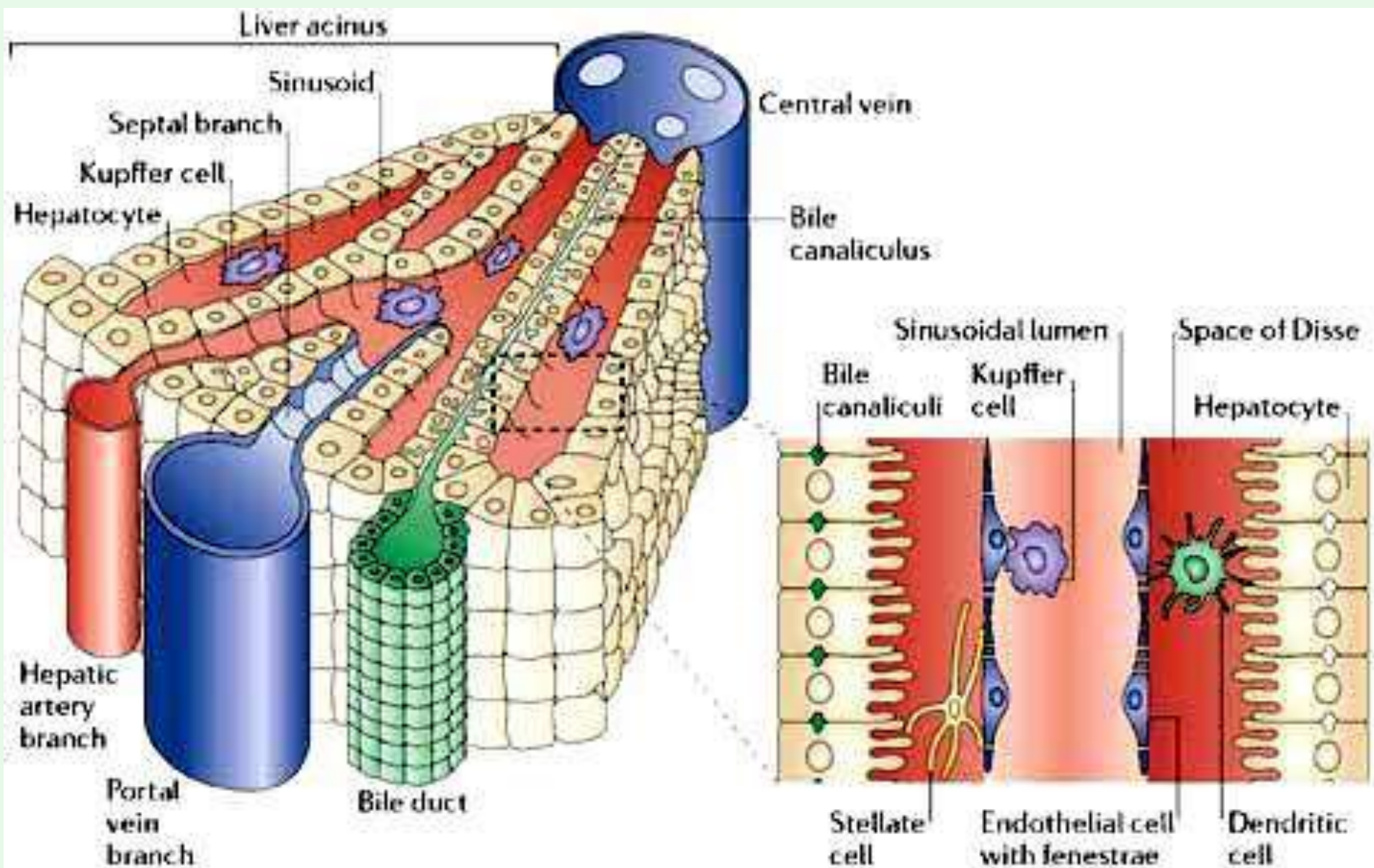
# Anatomy and functions

- ◆ The largest parenchymal organ in the body
  - ◆ Processes dietary nutrients
  - ◆ Synthesis of serum proteins
  - ◆ Detoxification & excretion of endogenous waste products and pollutant xenobiotics



# Normal histology



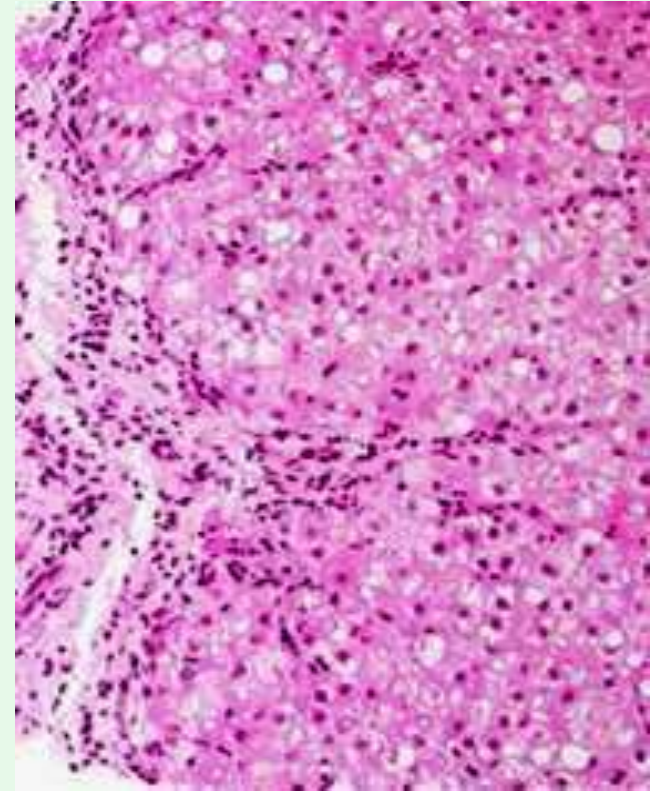
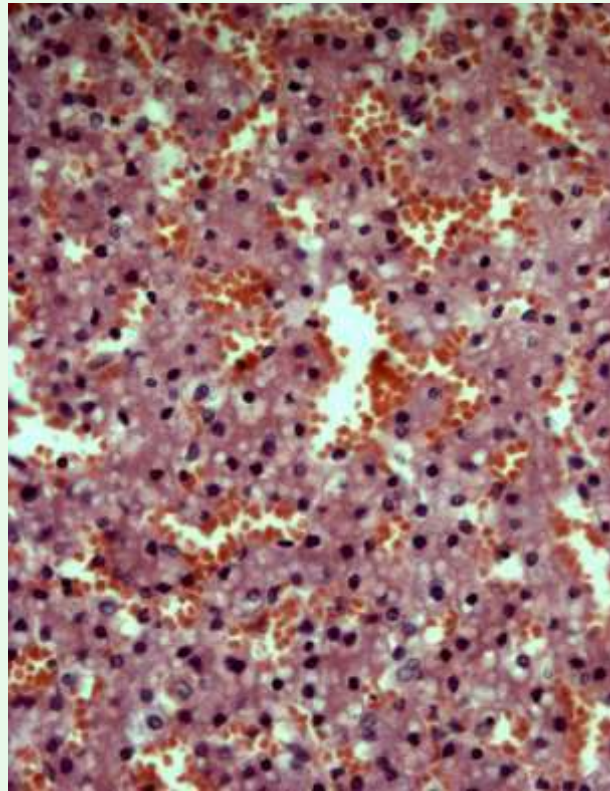
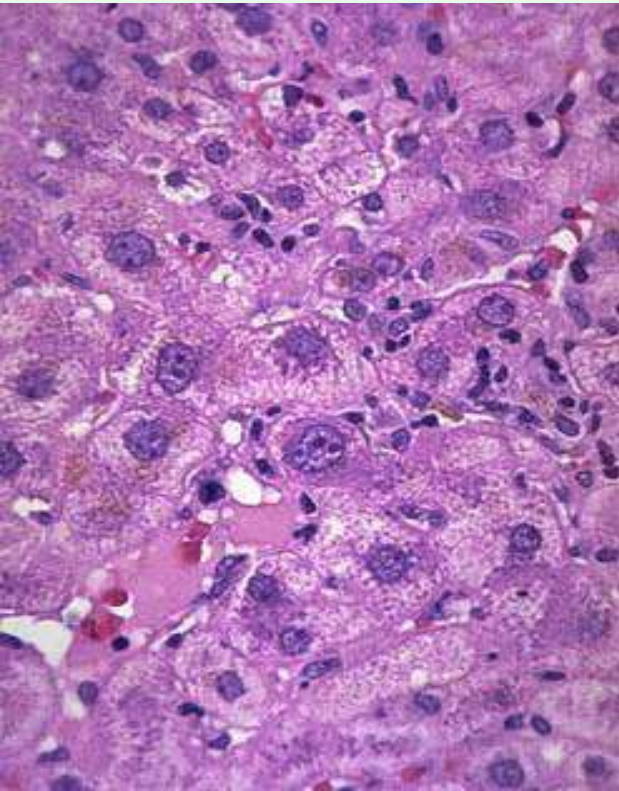


# General responses of liver to injuries

- ◆ Cell degeneration & cell death
- ◆ Inflammation
- ◆ Regeneration
- ◆ Fibrosis & cirrhosis

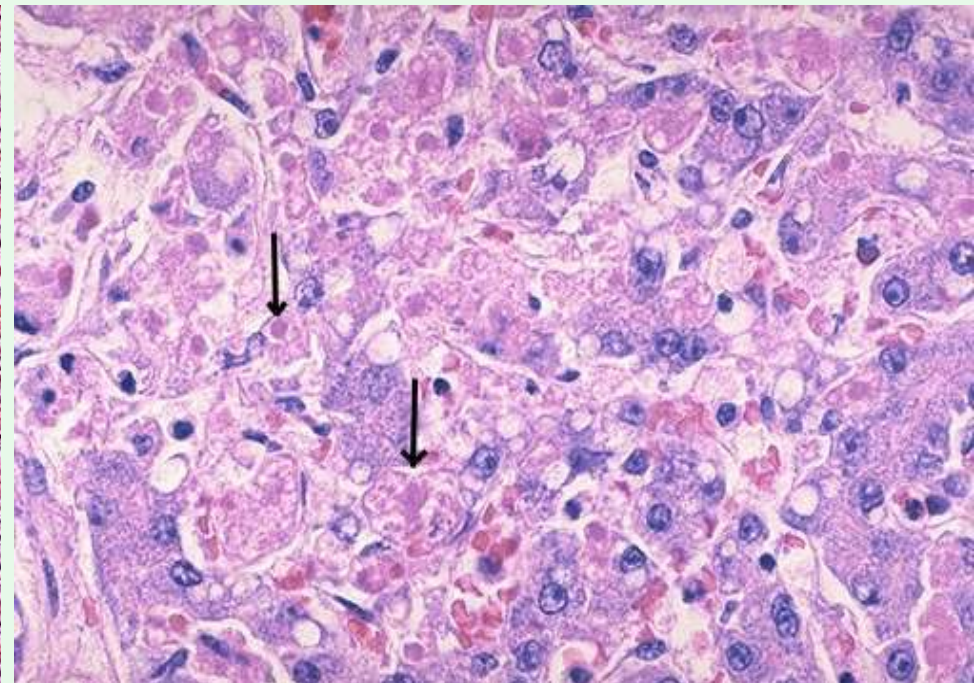
# Degeneration

- ◆ **Ballooning ~: edema**
- ◆ **Feathery ~: retained biliary material**
- ◆ **Steatosis: accumulation of fat droplets**
  - ◆ **Microvesicular steatosis**
  - ◆ **Macrovesicular steatosis**



# Necrosis & Apoptosis

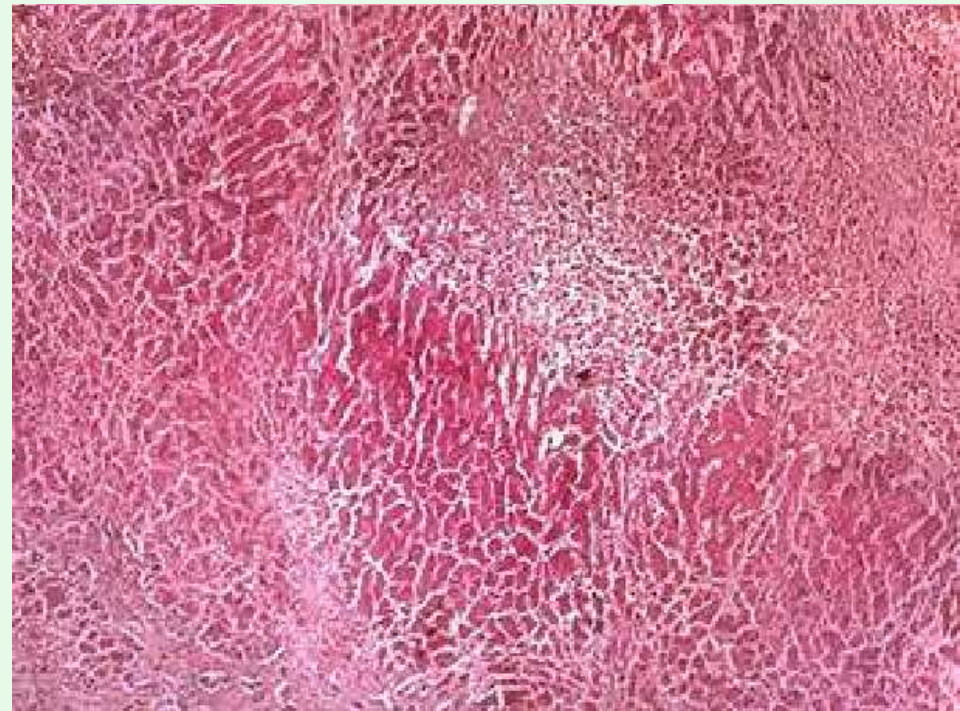
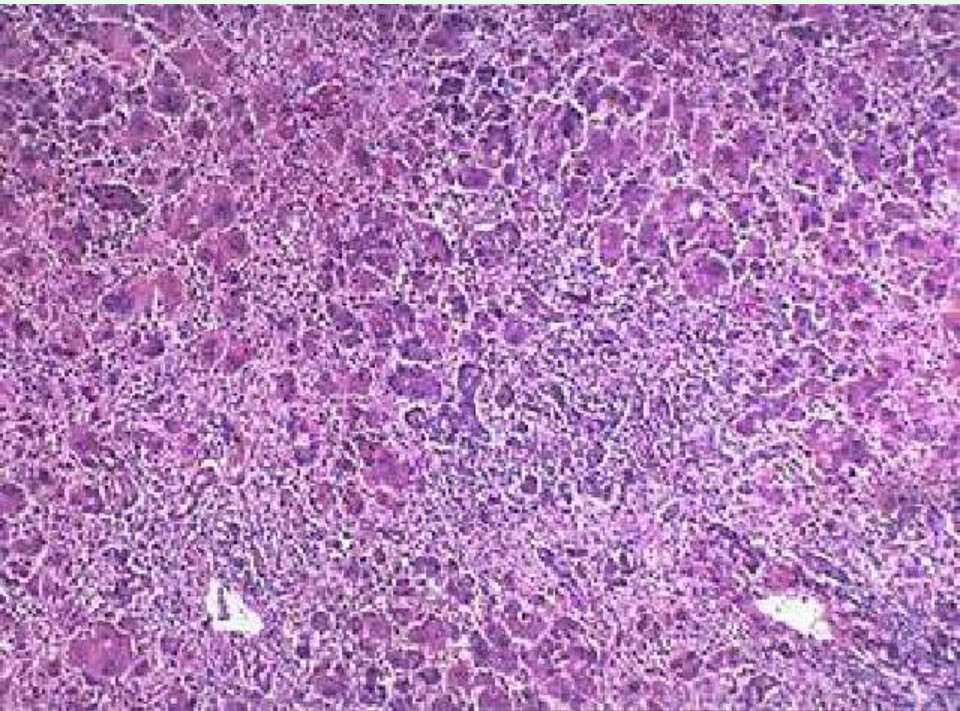
- ✦ According to the nature of cell death
  - ⊕ Coagulative necrosis
  - ⊕ Apoptotic cell death: Councilman body
  - ⊕ Lytic necrosis



# Necrosis & Apoptosis

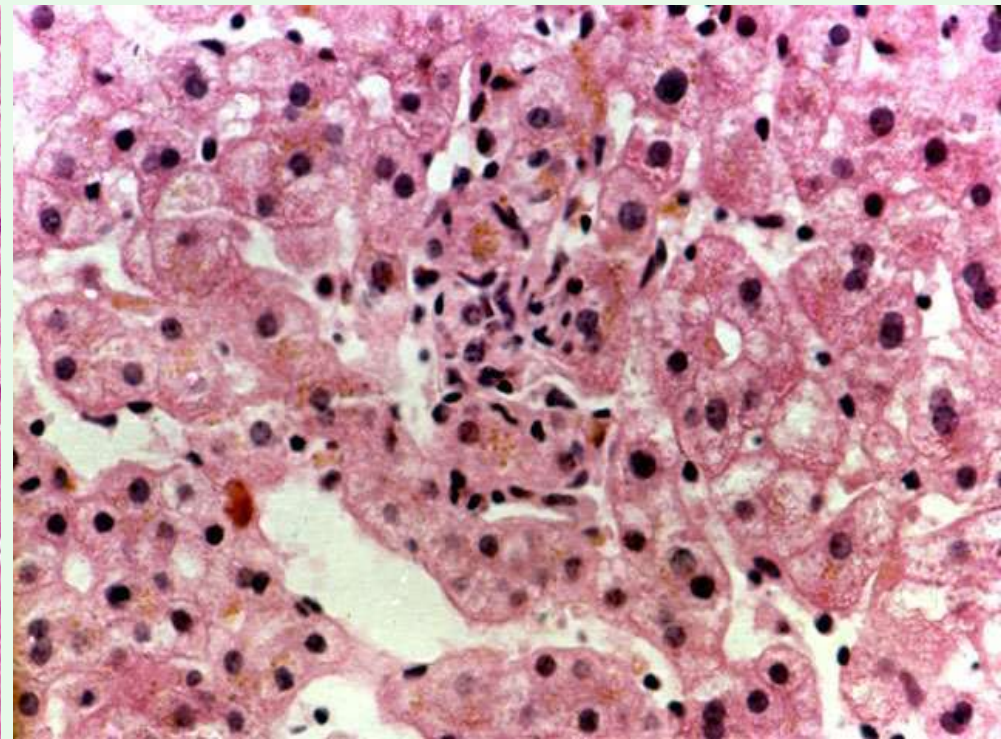
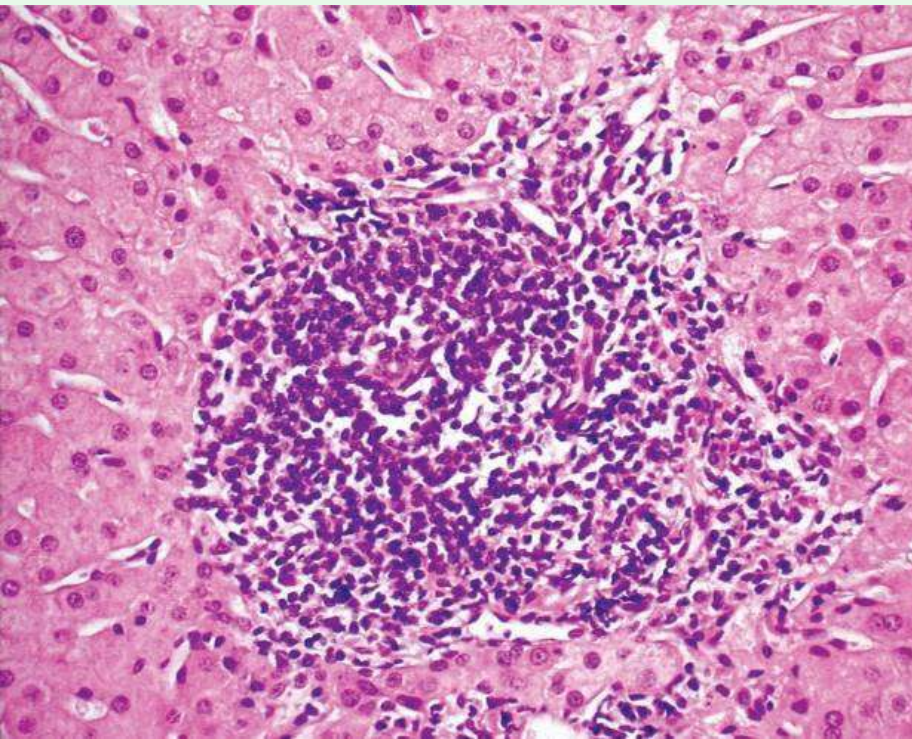
## ✦ According to distribution

- ✦ Centrilobular necrosis
- ✦ Spotty/focal necrosis
- ✦ "Piecemeal" necrosis ----interface hepatitis
- ✦ Bridging necrosis
- ✦ Submassive necrosis
- ✦ Massive necrosis



# ◆ Inflammation

- ◆ Necrosis incites inflammatory reaction
- ◆ Cytotoxic lymphocytes attack antigen-expressing liver cells
- ◆ Lymphocytes collect in the portal tract
- ◆ Kupffer cells engulf apoptotic cells
- ◆ Granulomatous reaction

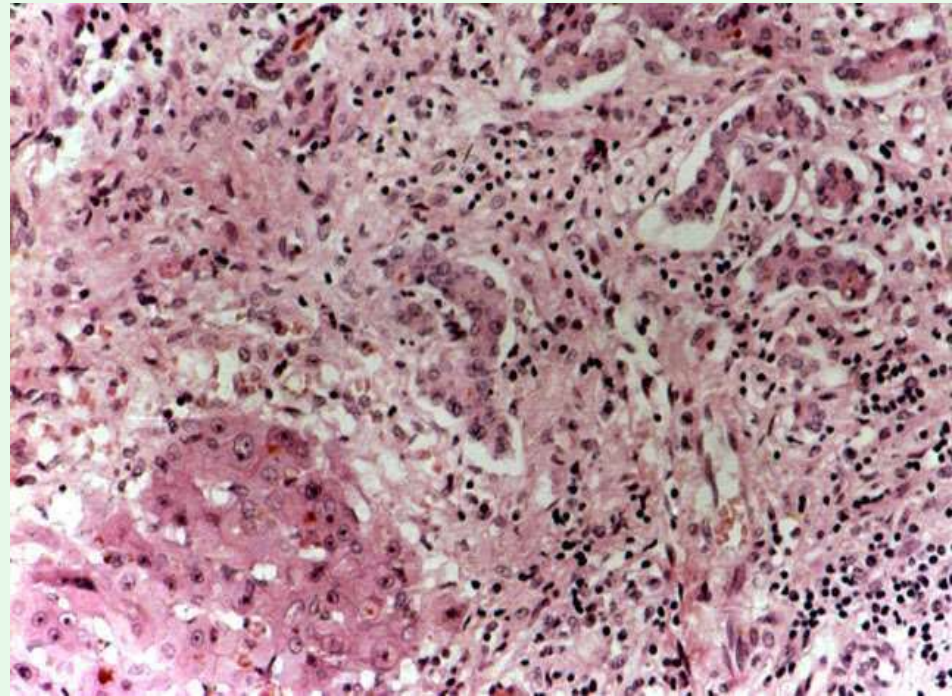
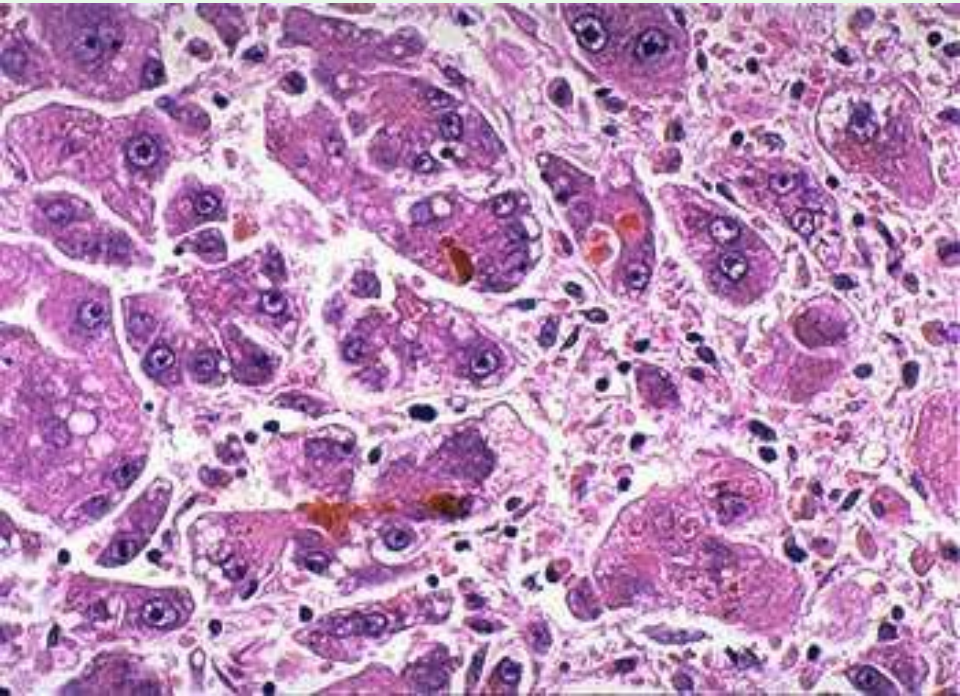


# ◆ Regeneration

- ◆ Hepatocellular proliferation

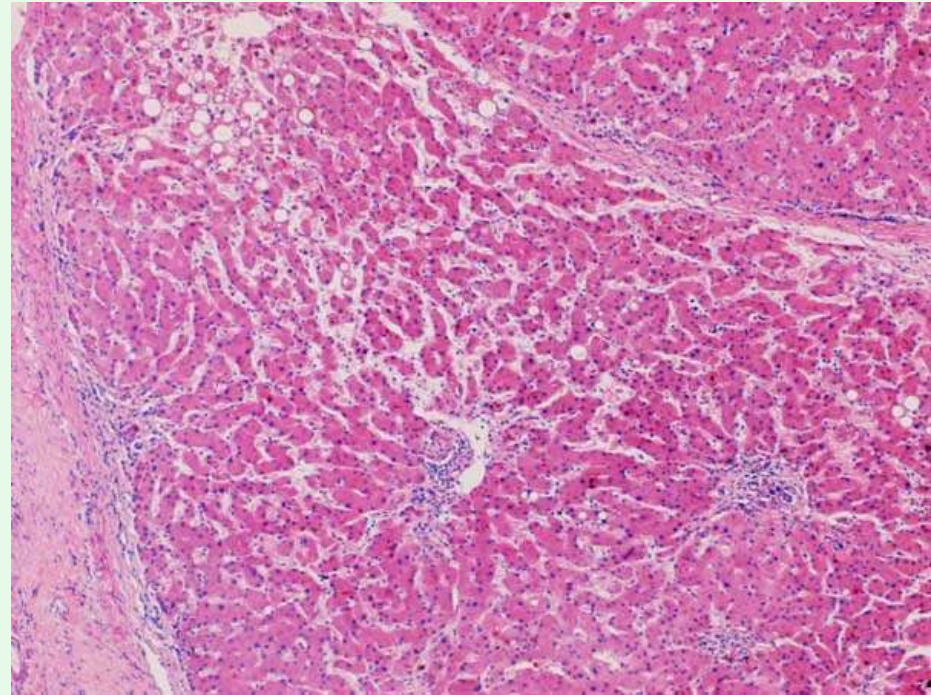
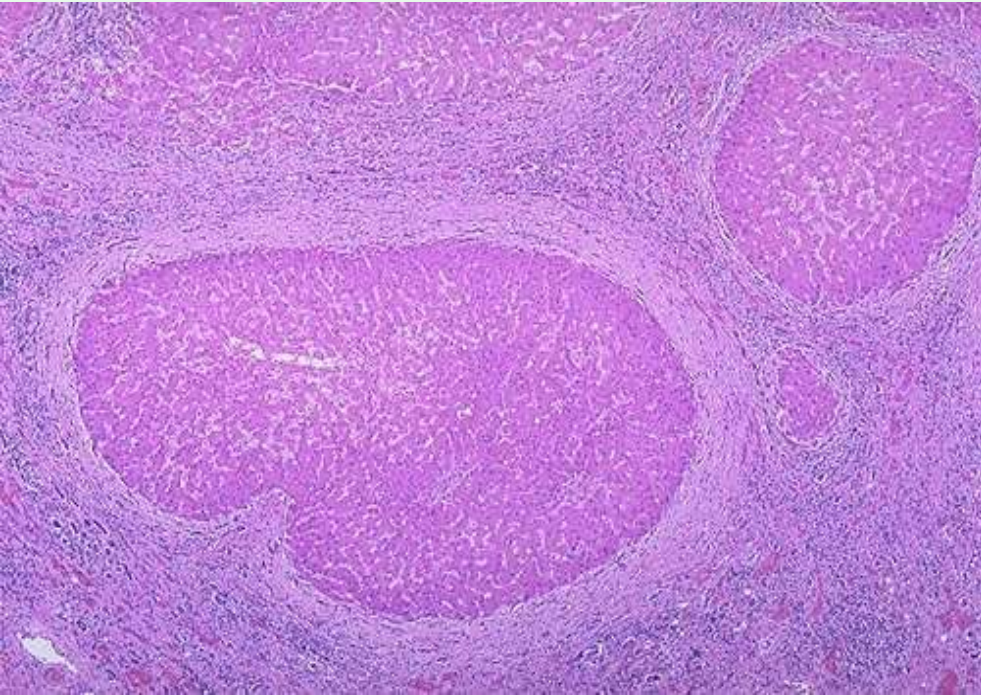
- ◆ Ductal reaction

**When hepatocellular necrosis occurs and leaves the connective tissue framework intact, almost perfect restitution of the liver structure can occur**



## ◆ Fibrosis and cirrhosis

- ◆ Response to inflammation or direct toxic insult to the liver
- ◆ Deposition of collagen
- ◆ Generally irreversible



# Viral Hepatitis

◆ Infection of the liver caused by a group of viruses having a particular affinity for the liver

◆ Hepatitis A

◆ Hepatitis B

◆ Hepatitis C

◆ Hepatitis D

◆ Hepatitis E

以上内容仅为本文档的试下载部分，为可阅读页数的一半内容。如要下载或阅读全文，请访问：<https://d.book118.com/575000014221011214>