



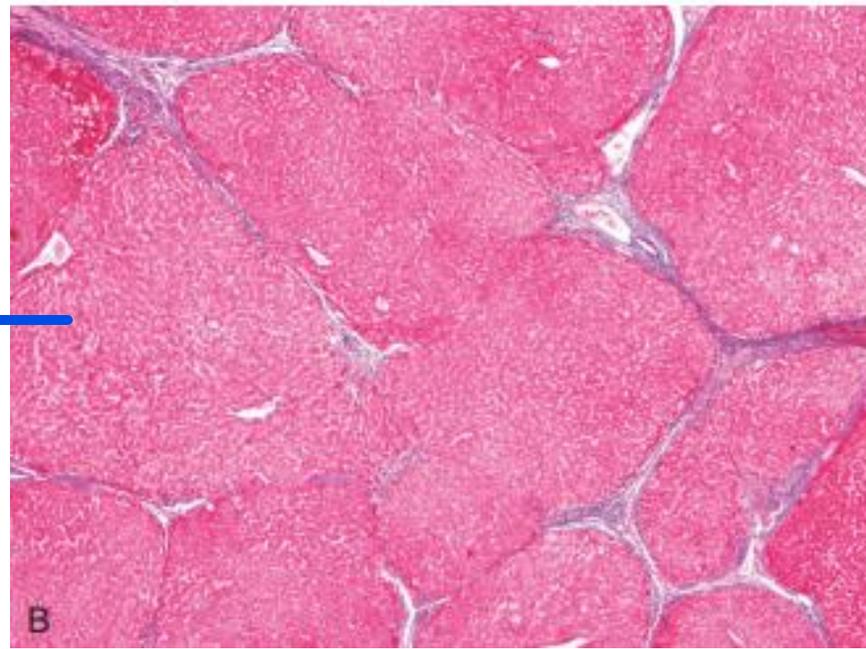


it refers to the diffuse transformation of the liver into regenerative parenchymal nodules surrounded by fibrous bands.

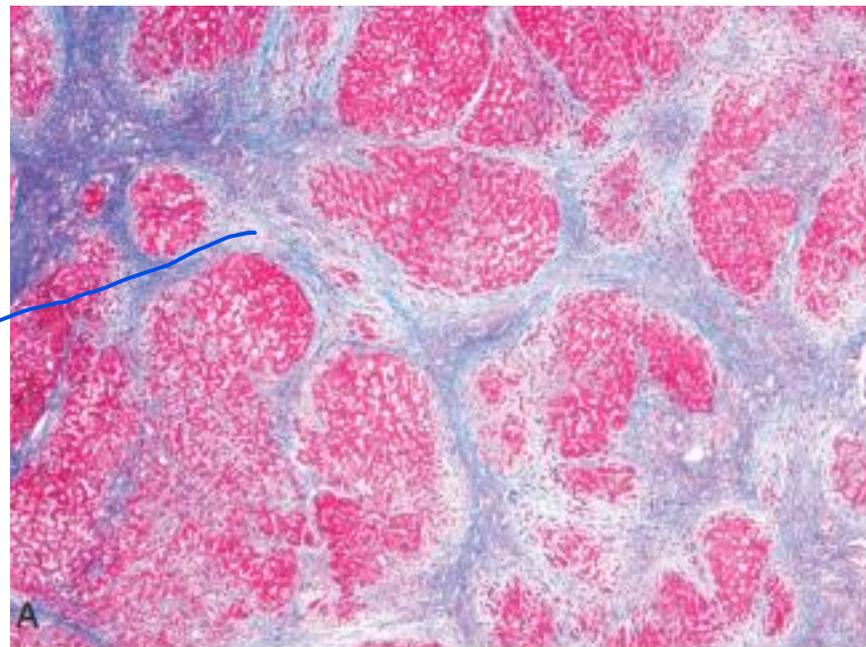
gross section of liver Cirrhosis

septa  
Because it is a normal dye, it does not appear

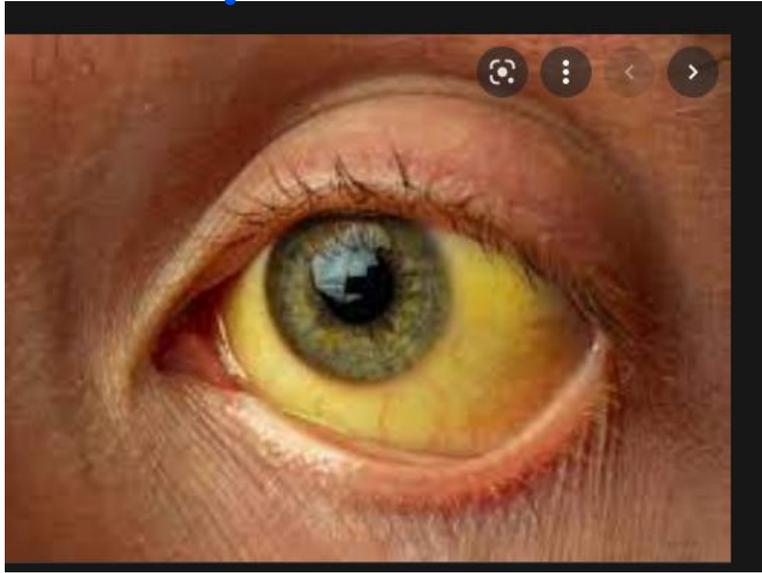
nodules surrounded by fibrous bands



Masson trichrome stain) highlights these fibrous septa



. Pruritus, portal hypertention



Jaundice



Disseminated intravascular coagulation (DIC)

# Hyperestrogenemia

Palmer erythema

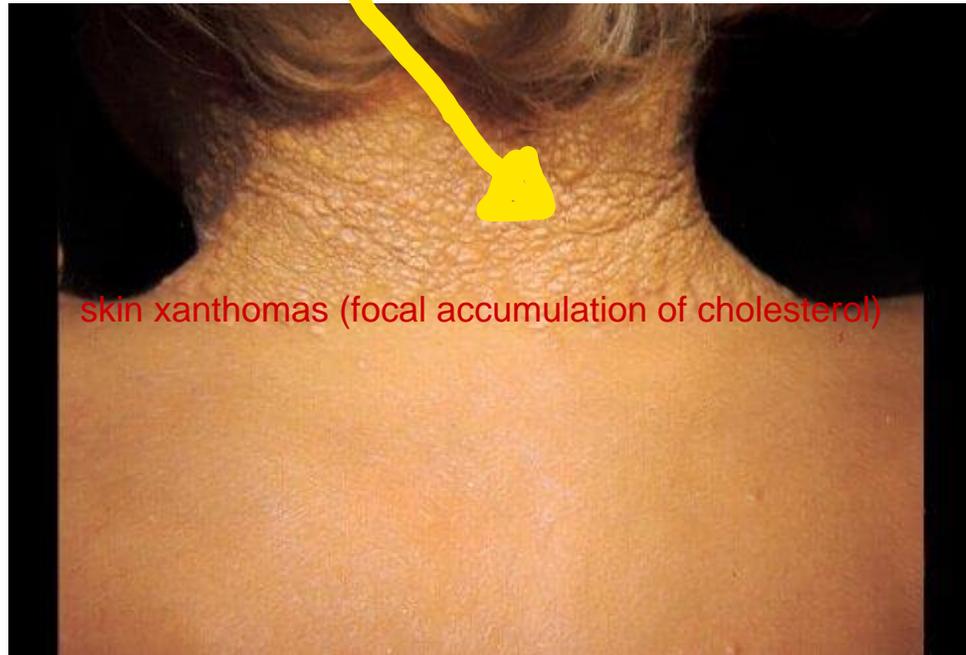


impaired estrogen metabolism in male patients with chronic liver failure can give rise to palmar erythema

spider angiomas of the skin



# cholestasis sign

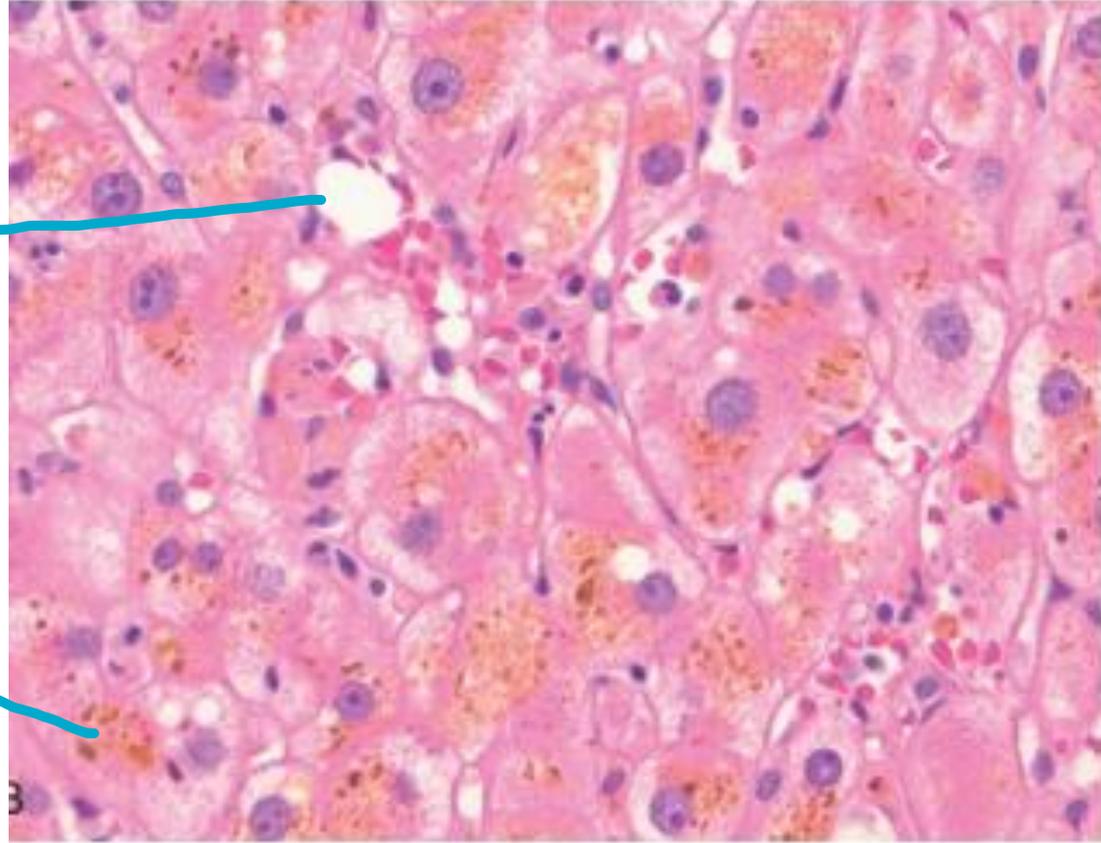


skin xanthomas (focal accumulation of cholesterol)

feathery cell is white



cholestasis yellows pigments  
in the hepatocyte

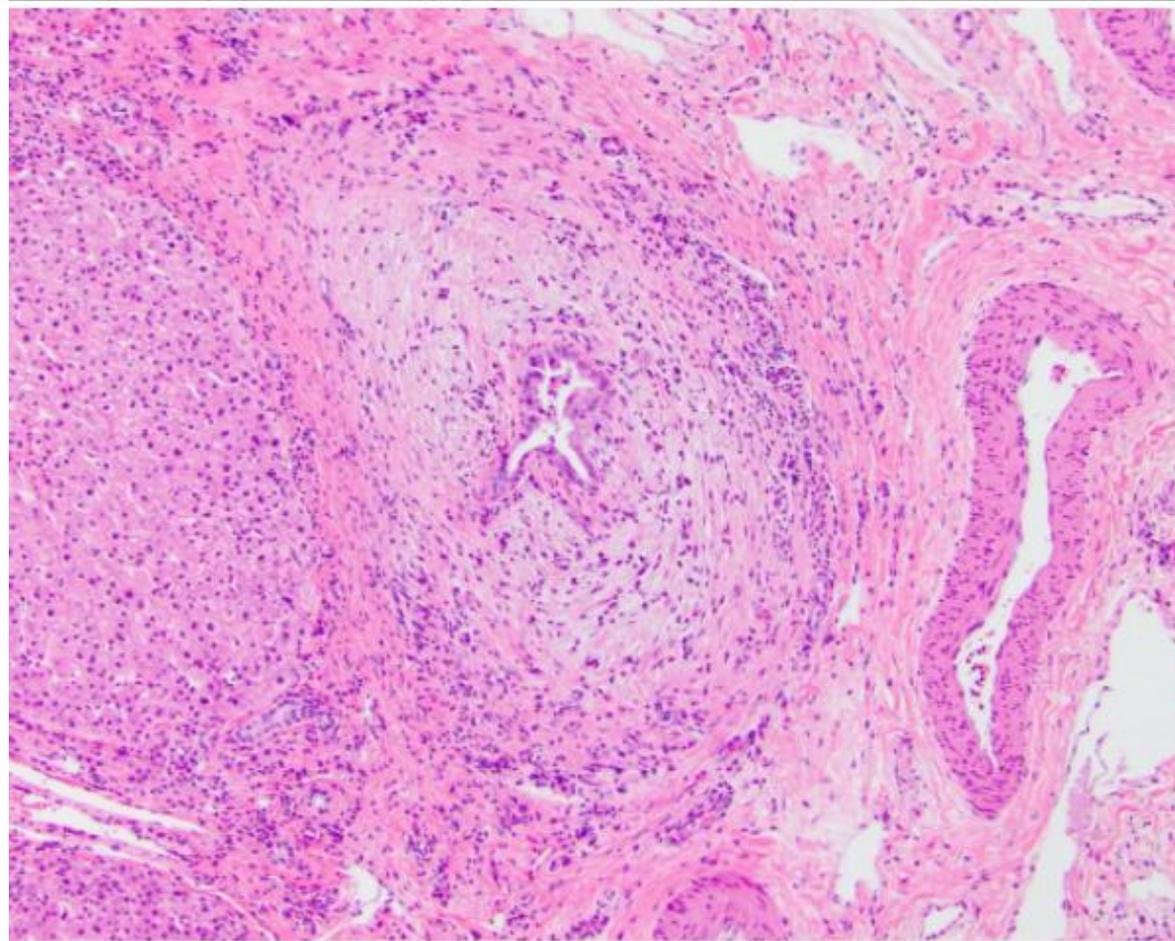




. Primary Biliary  
Cholangitis

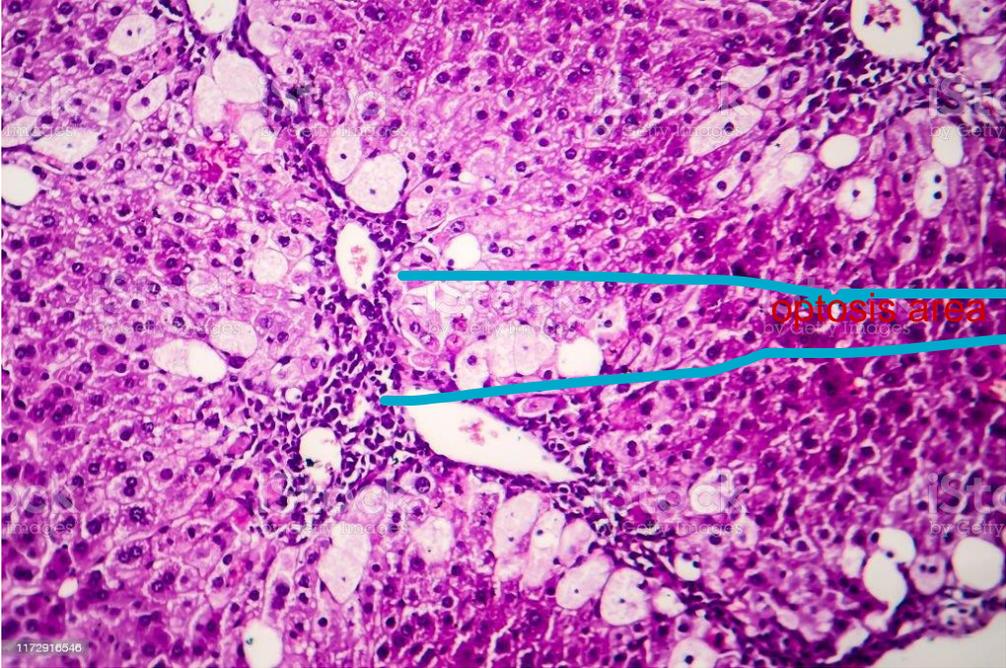
Dense lymphocytic infiltrate in portal tracts with granulomatous destruction and loss of medium sized interlobular bile ducts, focal and variable within the liver

inflammation and  
obliterative fibrosis  
of intrahepatic and  
extrahepatic bile  
ducts, leading to  
dilation of  
preserved segments.  
Classic finding is "  
onion skin" fibrosis  
around affected bile  
ducts

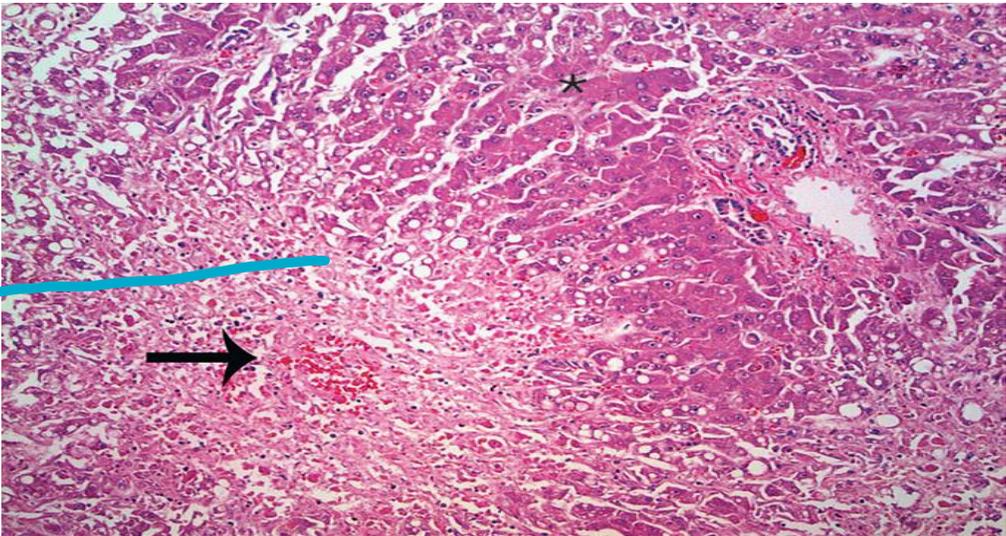


. Primary Sclerosing Cholangitis

Acute hepatitis contain mononuclear infiltrate's that's mild

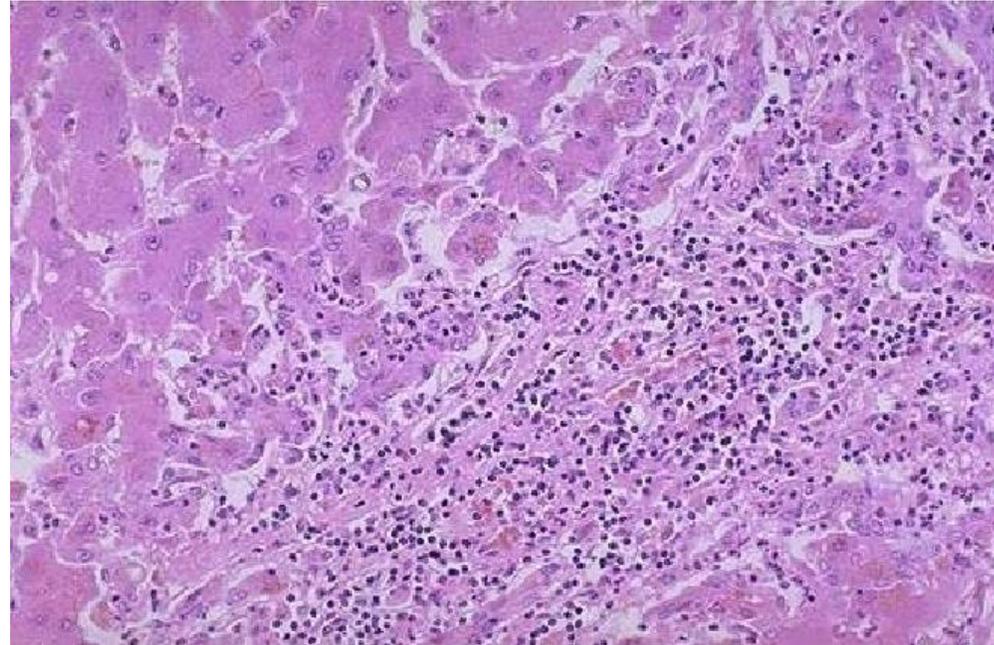


apoptosis area



necrosis area

chronic Hepatitis dense mononuclear  
filtrate



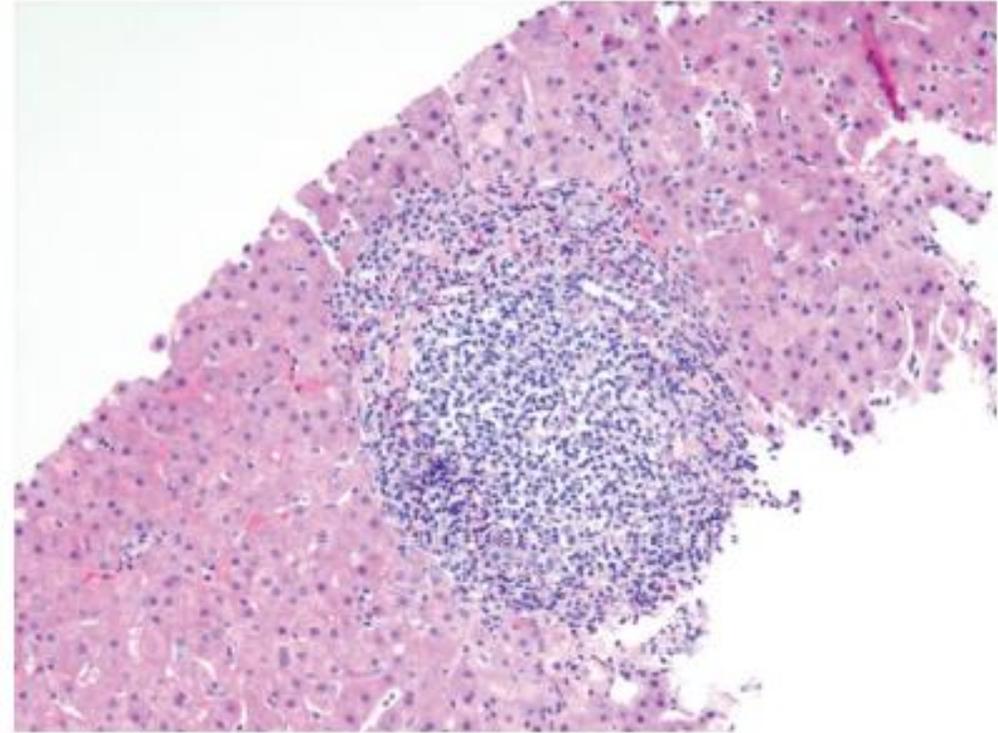


Fig. 16.15 Chronic viral hepatitis due to HCV, showing characteristic portal tract expansion by a dense lymphoid infiltrate.

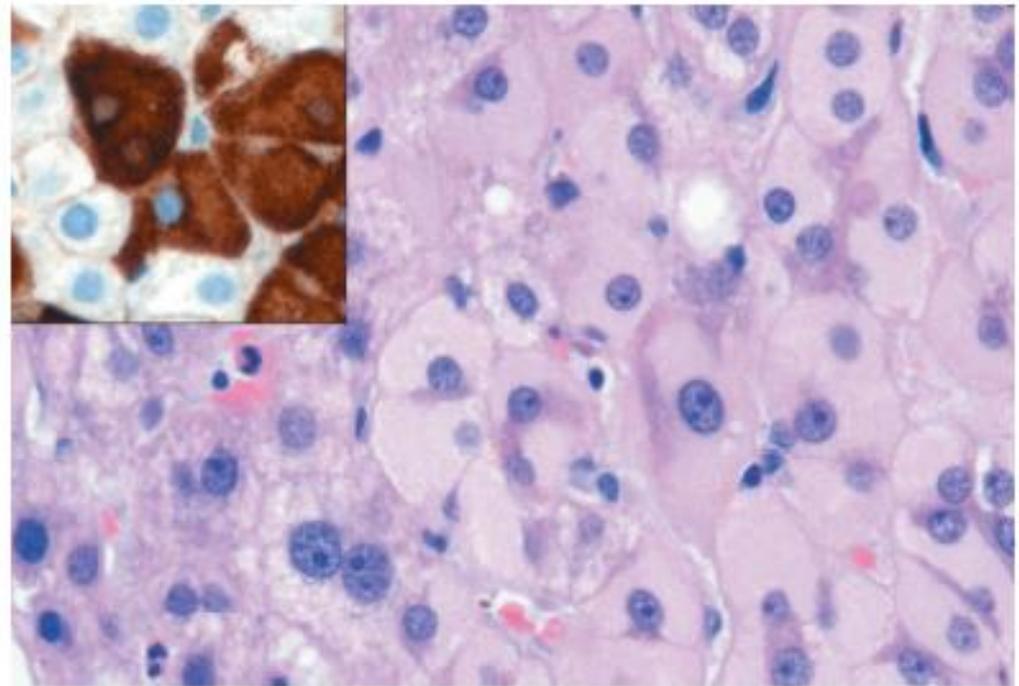
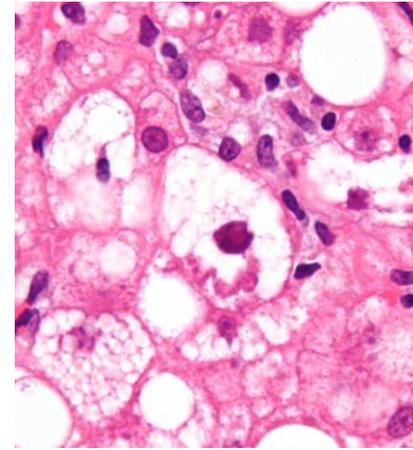
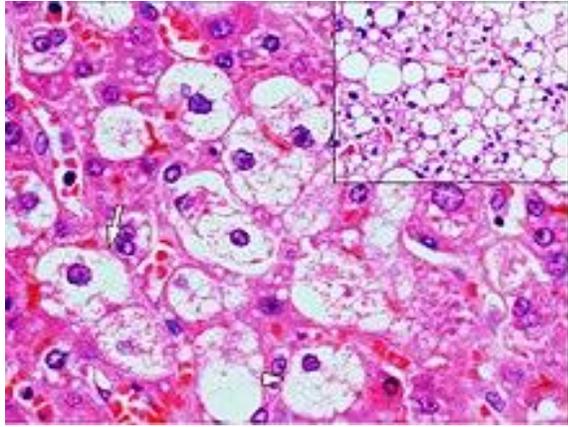


Fig. 16.14 Ground-glass hepatocytes in chronic hepatitis B, caused by accumulation of hepatitis B surface antigen. Hematoxylin-eosin staining shows the presence of abundant, finely granular pink cytoplasmic inclusions; immunostaining (*inset*) with a specific antibody confirms the presence of surface antigen (*brown*).

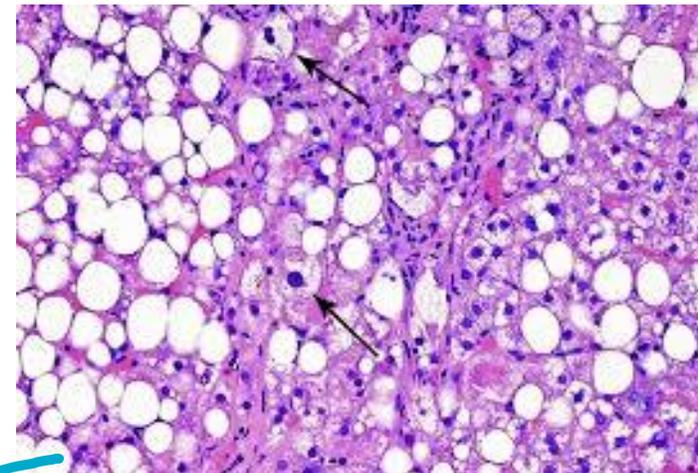
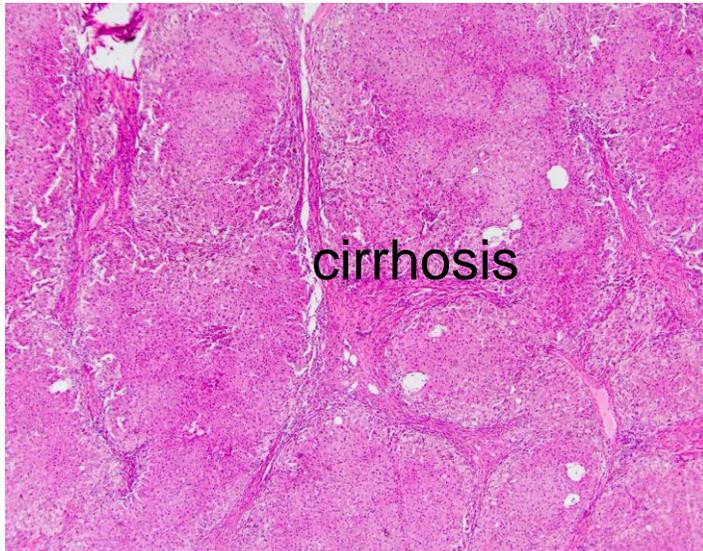
Histopathological characteristics of alcoholic liver disease



steatosis accumulations intracellular lipids

malorectic bodies

With lipid, liver cells will lose the pink color they normally had

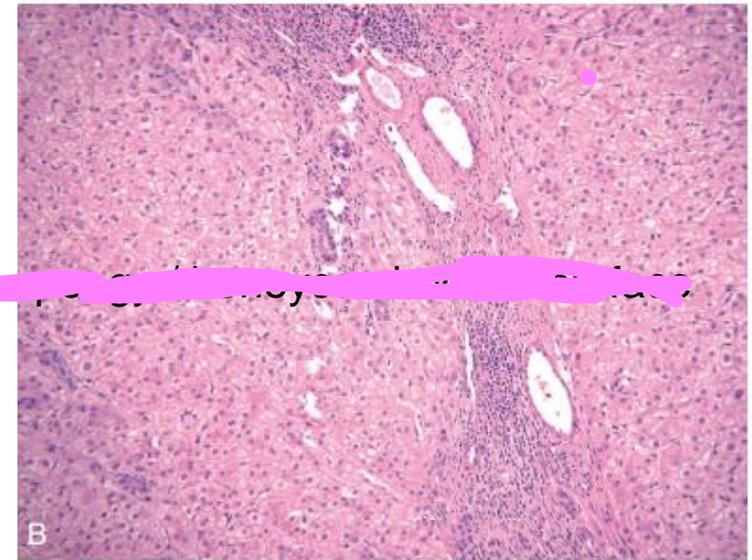


feathery degeneration of hepatocyte



## Focal nodular hyperplasia

there is a central gray-white, depressed stellate scar from which fibrous septa radiate to the periphery.





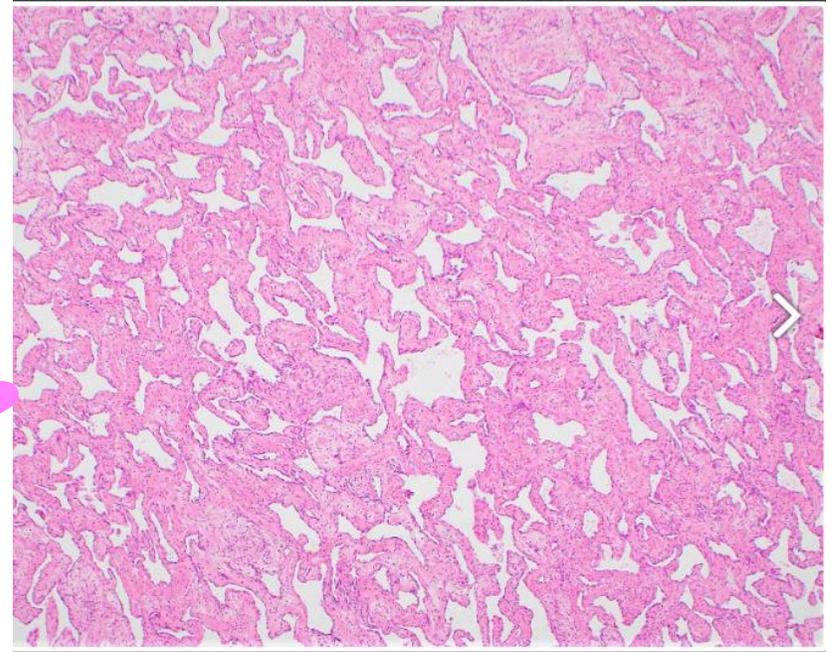
. Cavernous  
hemangiomas

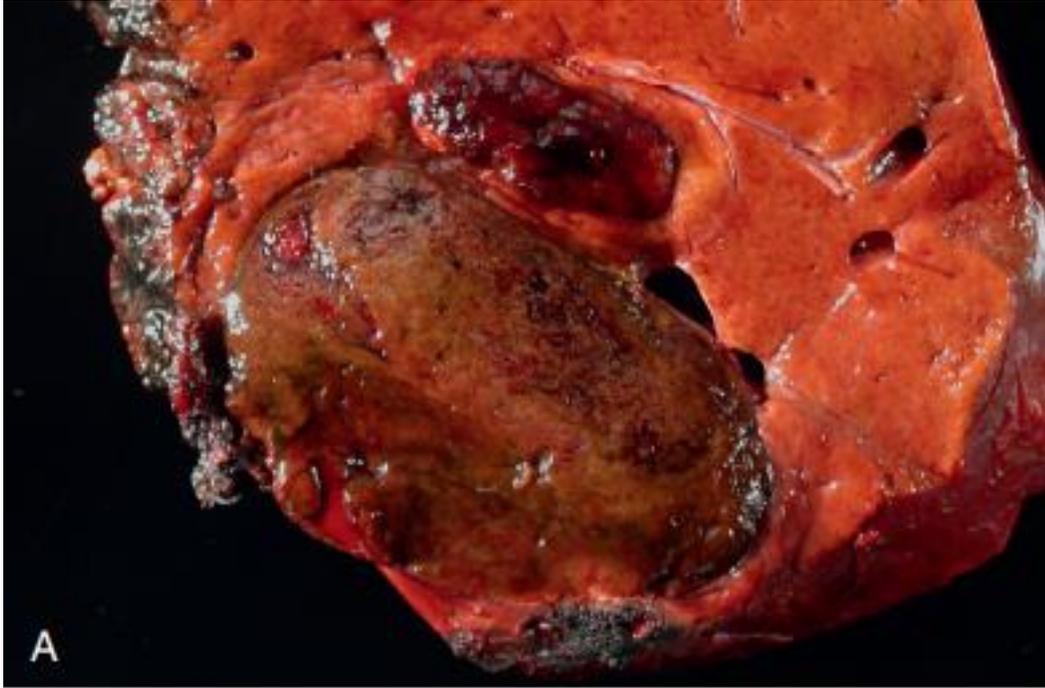
Gross description:

Well circumscribed with red-brown, spongy / honeycombed cut surface

Microscopic:

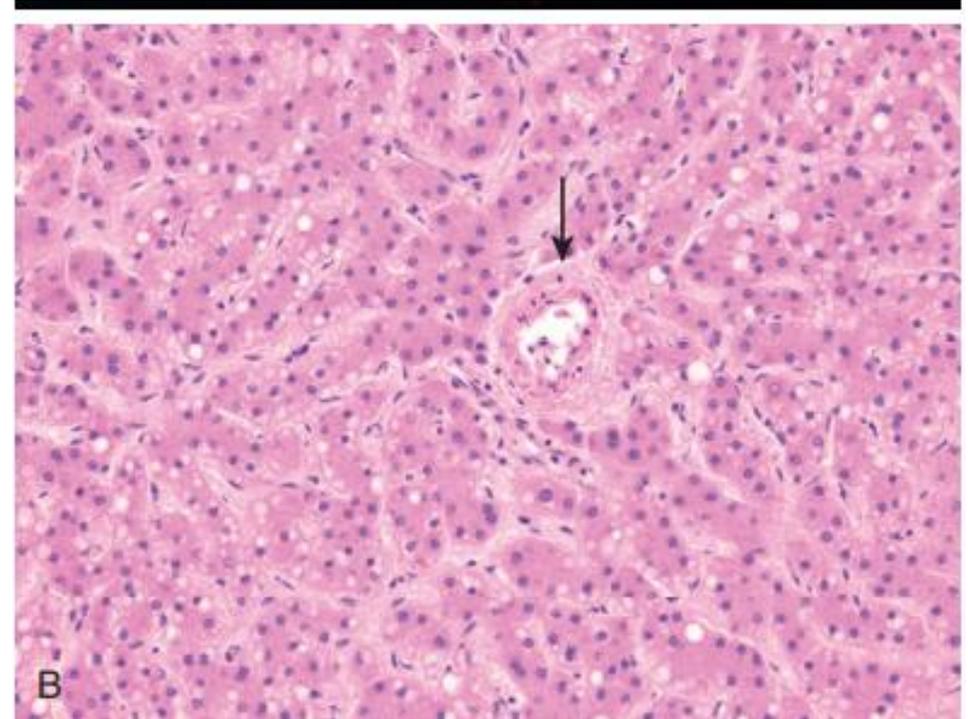
Circumscribed proliferation of variably sized, dilated and thin walled vessels





## Hepatocellular Adenomas

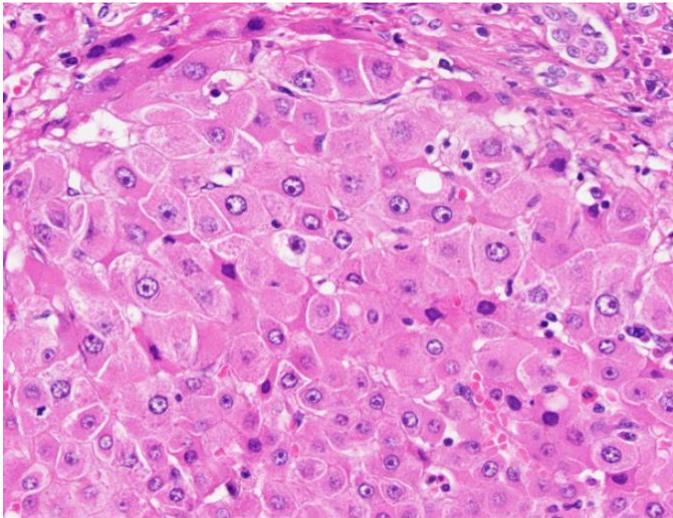
Benign neoplasms developing from hepatocytes. may be detected incidentally or cause symptoms ( pain, which may be caused by pressure placed on the liver capsule by the expanding mass or hemorrhagic necrosis of the tumor as it outstrips its blood supply).



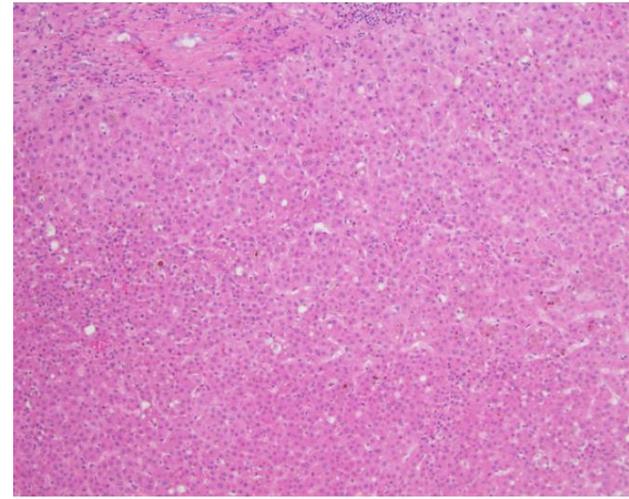
Microscopic view showing cords of hepatocytes, with an arterial vascular supply (arrow) and no portal tracts

# HCC

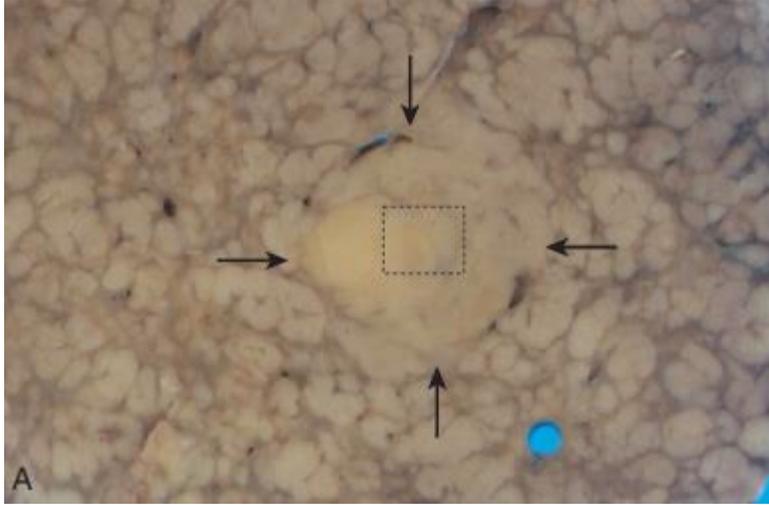
Chronic liver disease associated with cellular dysplasias



large-cell change.:  
increase in both nuclear and cytoplasmic size,  
preserving nuclear to cytoplasmic ratio; nuclei are  
hyperchromatic, pleomorphic and frequently  
multinucleated



small-cell change:  
decreased cell volume, increased nuclear to cytoplasmic  
ratio, mild nuclear pleomorphism, hyperchromasia and  
cytoplasmic basophilia, giving the impression of nuclear  
crowding

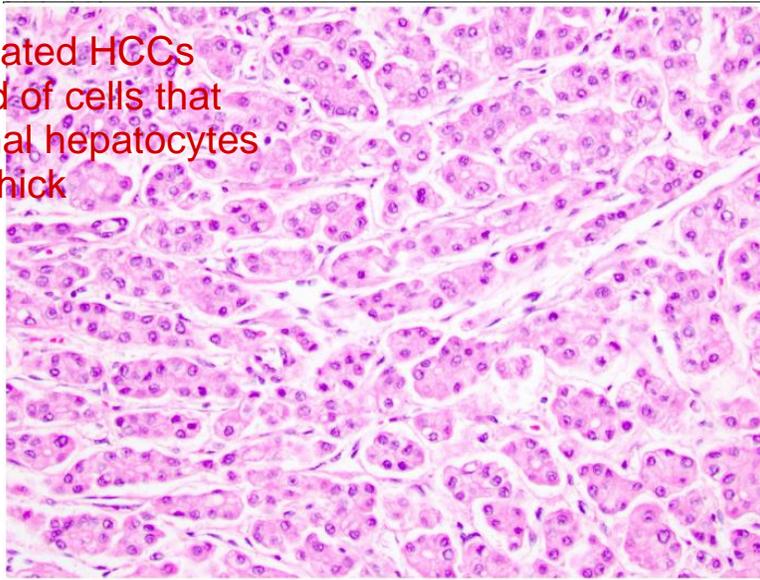


- 1) a unifocal (usually large) mass.
- (2) multifocal, widely distributed nodules of variable size.
- (3) a diffusely infiltrative cancer,

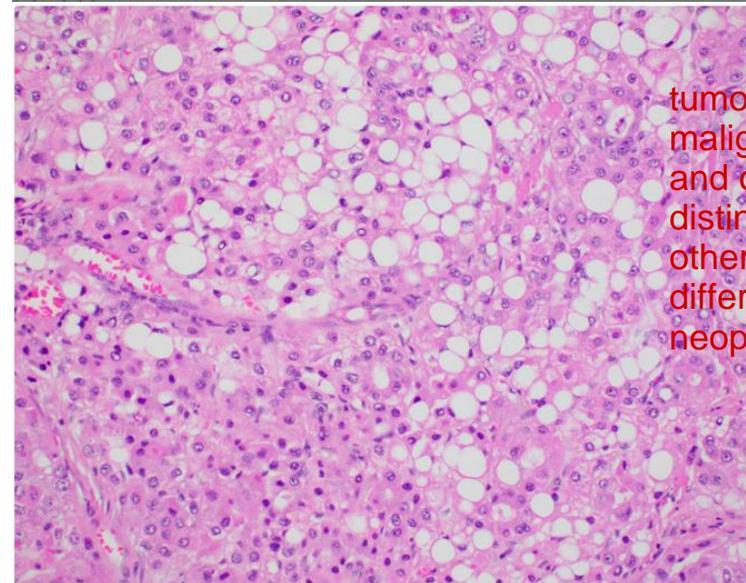


HCC may appear grossly

Well-differentiated HCCs are composed of cells that look like normal hepatocytes and grow as thick trabeculae

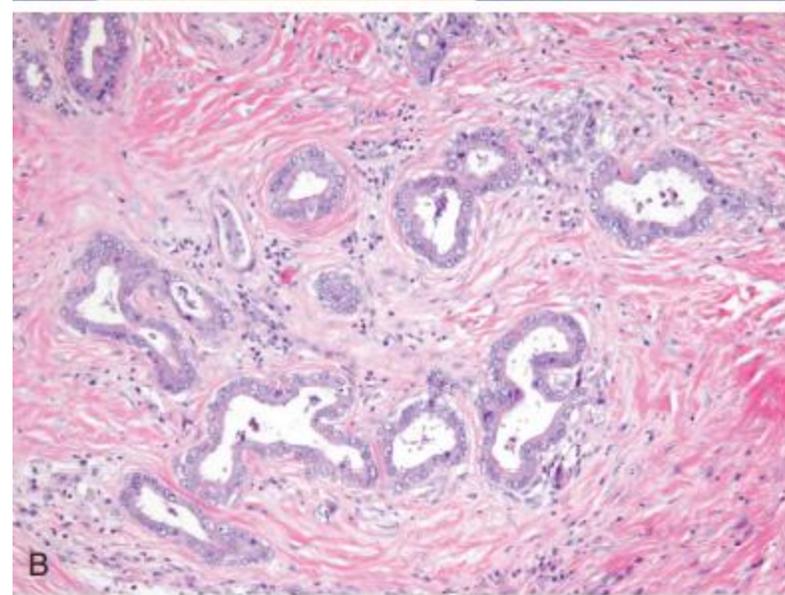


tumor cells appear malignant on H&E and often cannot be distinguished from other poorly differentiated neoplasms;

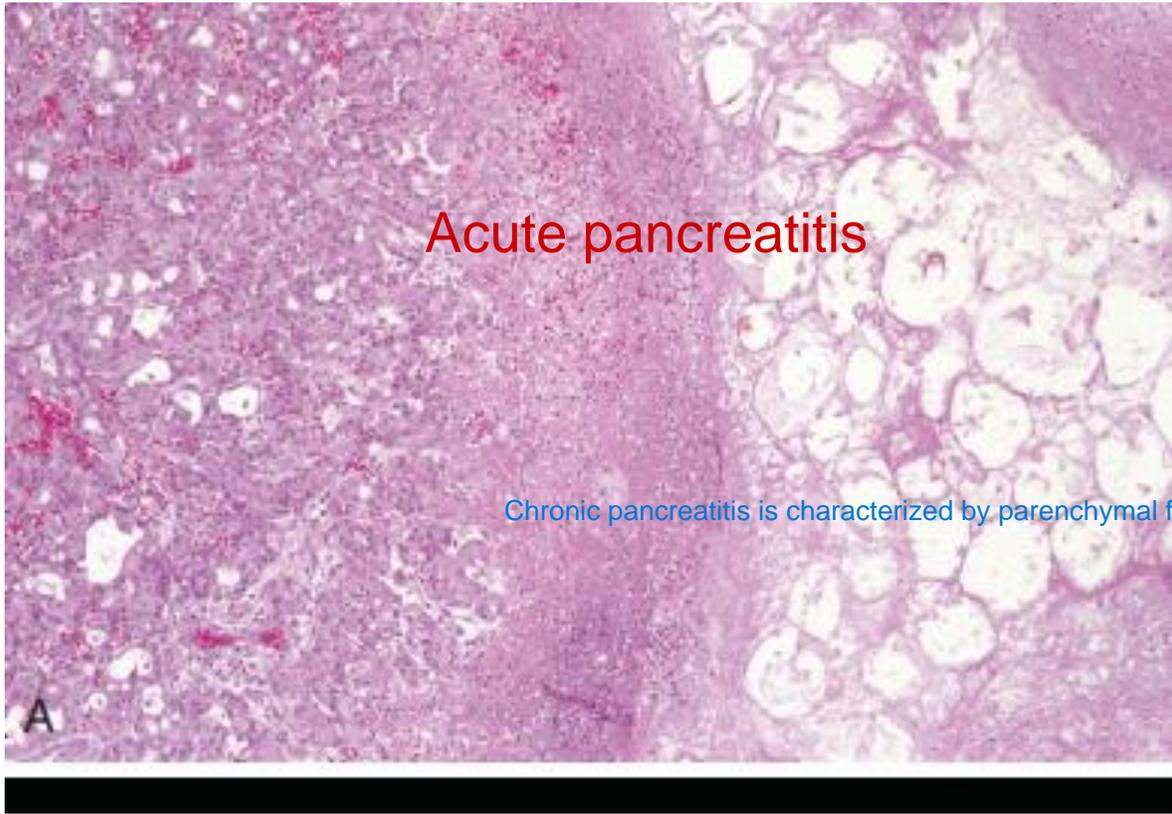




Cholangiocarcinomas  
are typical  
mucin-producing  
adenocarcinomas



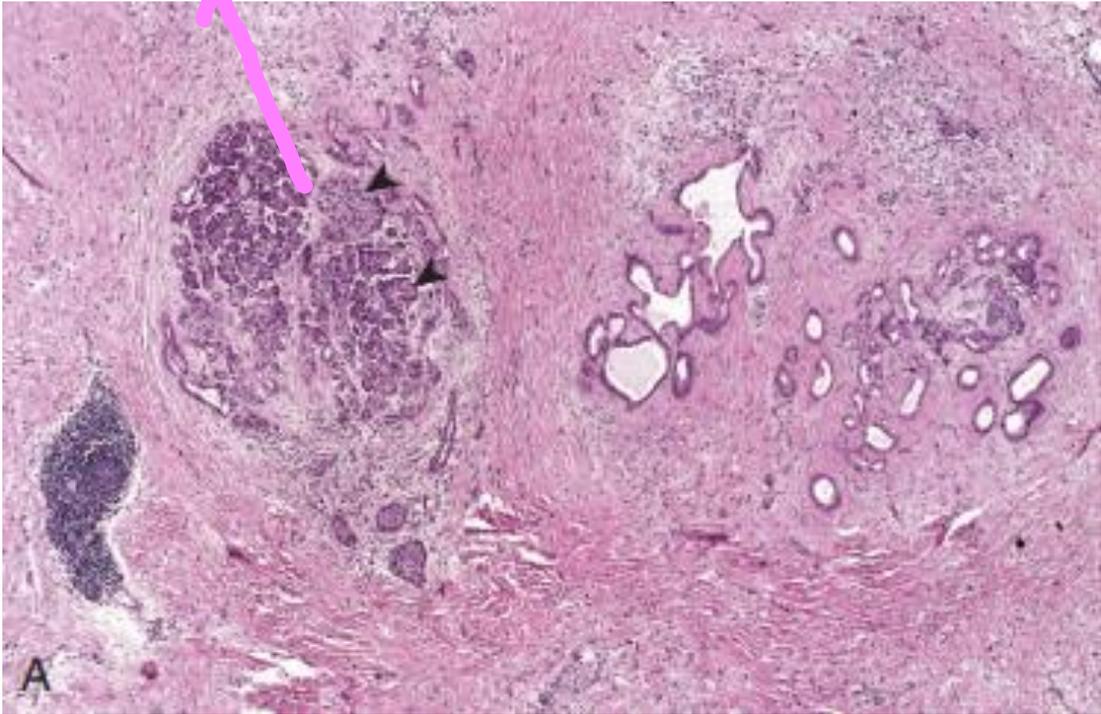
Most are well to moderately  
differentiated, growing as  
glandular/tubular structures  
lined by malignant epithelial  
cells.



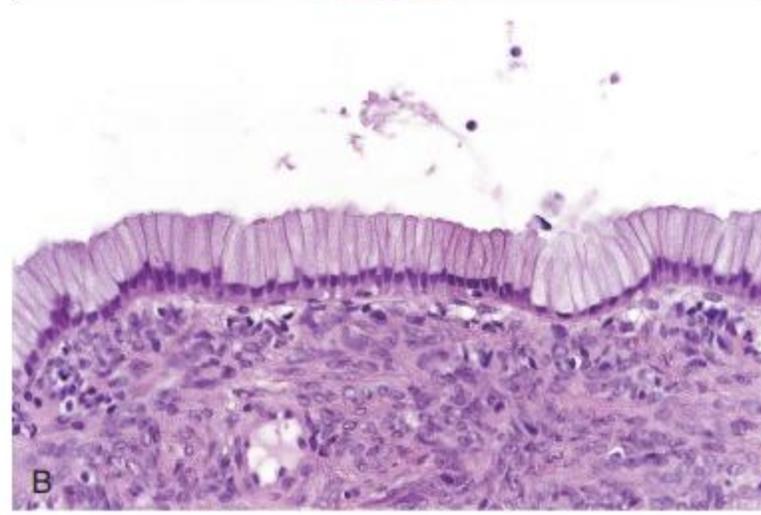
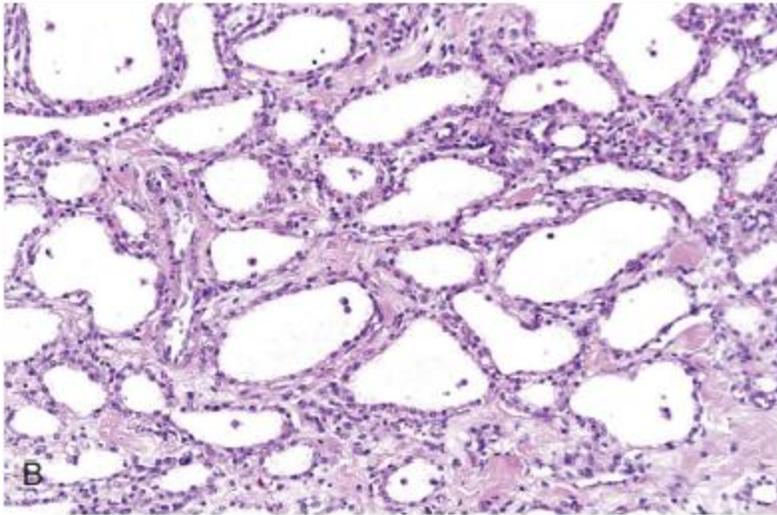
**Acute pancreatitis**

acute  
inflammatory cell  
infiltrate admixed  
with edema and  
fibrinous exudate.  
patchy necrosis

Chronic pancreatitis is characterized by parenchymal fibrosis, reduced number and size of acini, and variable dilation of the pancreatic ducts

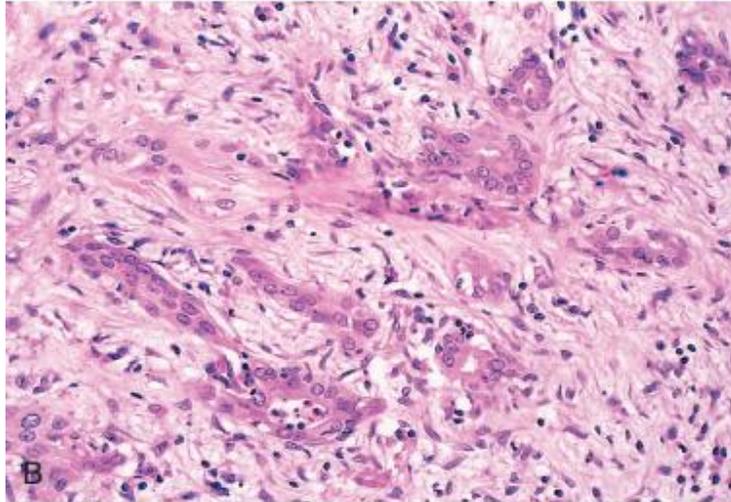
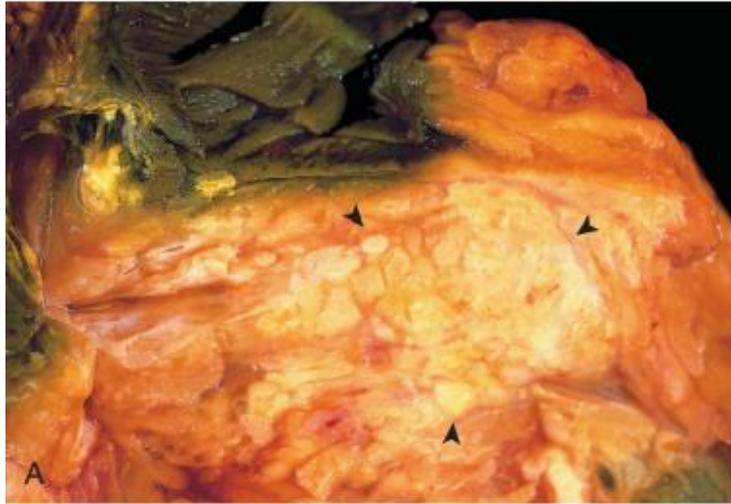


Serous cystadenomas :  
composed of  
glycogen-rich cuboidal  
cells surrounding small  
cysts containing clear,  
straw colored fluid



mucinous cystic  
neoplasm: the  
cysts are lined by  
a columnar  
mucinous  
epithelium with an  
associated  
densely cellular  
stroma  
resembling that of  
the ovary

Carcinomas of the pancreas usually are hard, gray-white, stellate, poorly defined masse



On microscopic examination, pancreatic carcinoma usually is a moderately to poorly differentiated adenocarcinoma forming abortive glands with mucin secretion or cell clusters and exhibiting an aggressive, deeply infiltrative growth pattern