

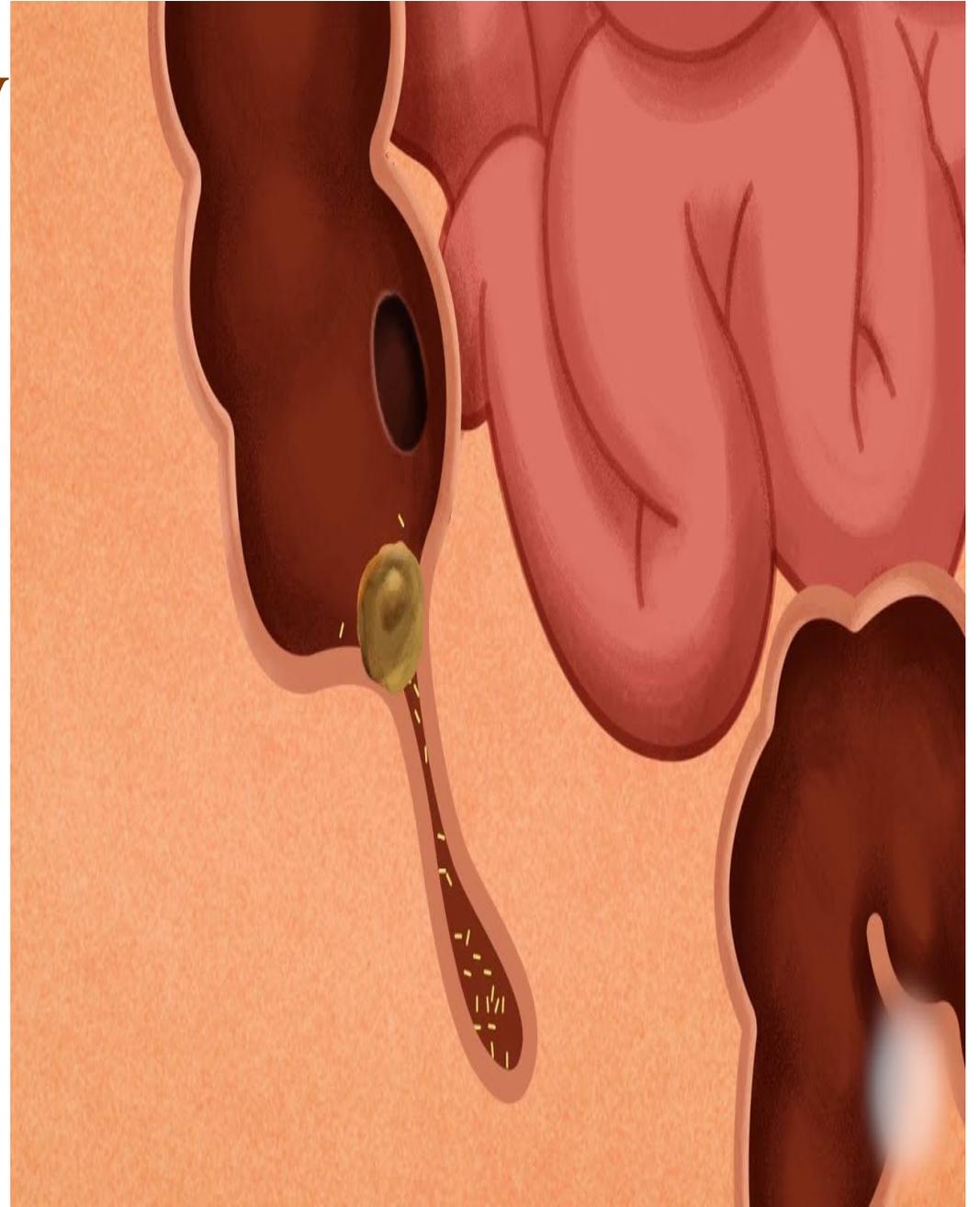
Al-Mustaqbal University

Pathophysiology 3rd stage

Lab - 4 -

Liver disorders and appendicitis

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Acute appendicitis

- Acute appendicitis refers to the sudden and severe inflammation of the appendix.
- Acute appendicitis is a medical emergency, and people will need medical care straight away.
- The appendix is a small tube that attaches to the large intestine. It is located in the lower right-hand side of the abdomen.
- Any blockage or inflammation affecting the appendix can lead to swelling, causing pain.
- Without treatment, the appendix can burst within 48–72 hours of a person first experiencing symptoms of acute appendicitis.
- A burst appendix can lead to a serious infection called peritonitis, which can be life-threatening without prompt treatment.
- It is best to avoid taking any pain relief medication for symptoms of acute appendicitis, as this could mask symptoms that a doctor will need to know about.

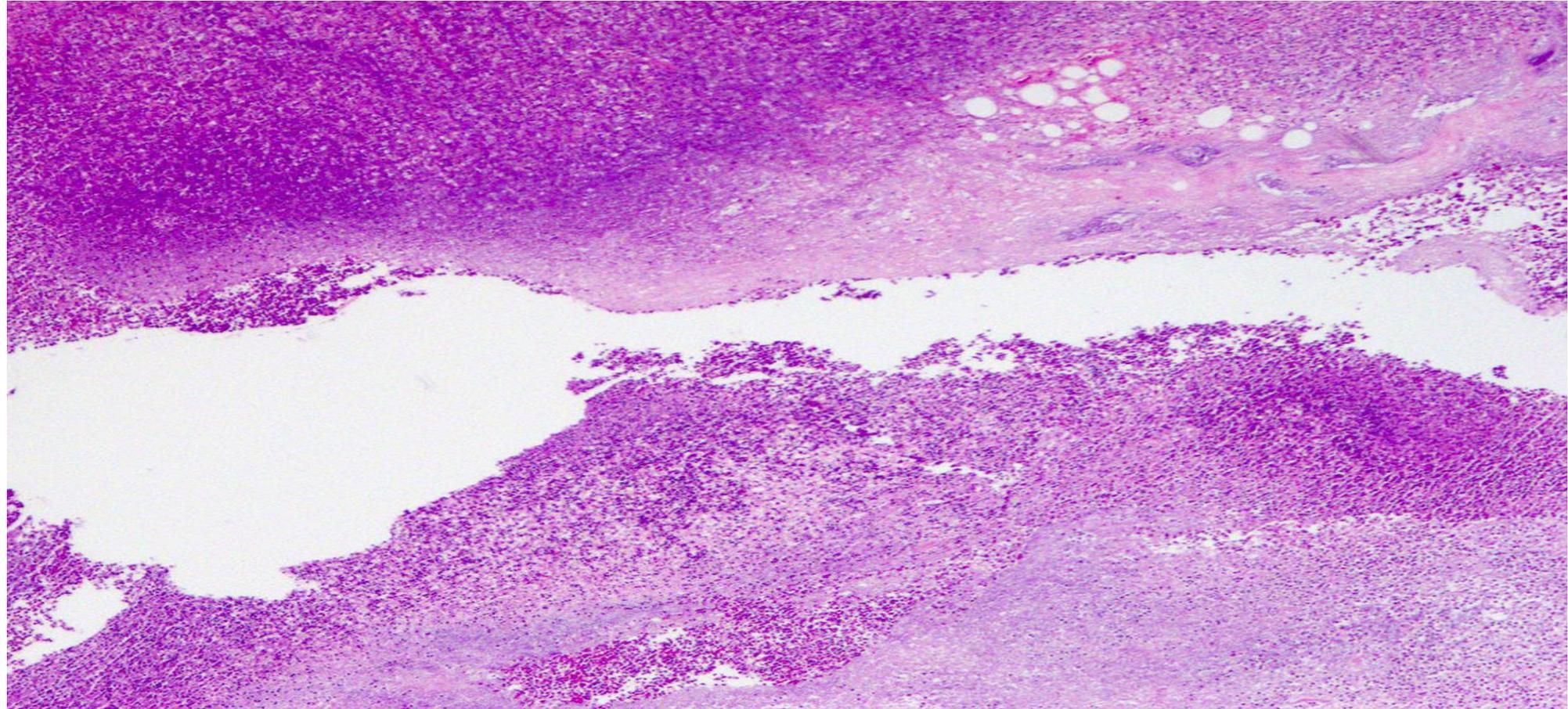
Microscopic (histologic) description

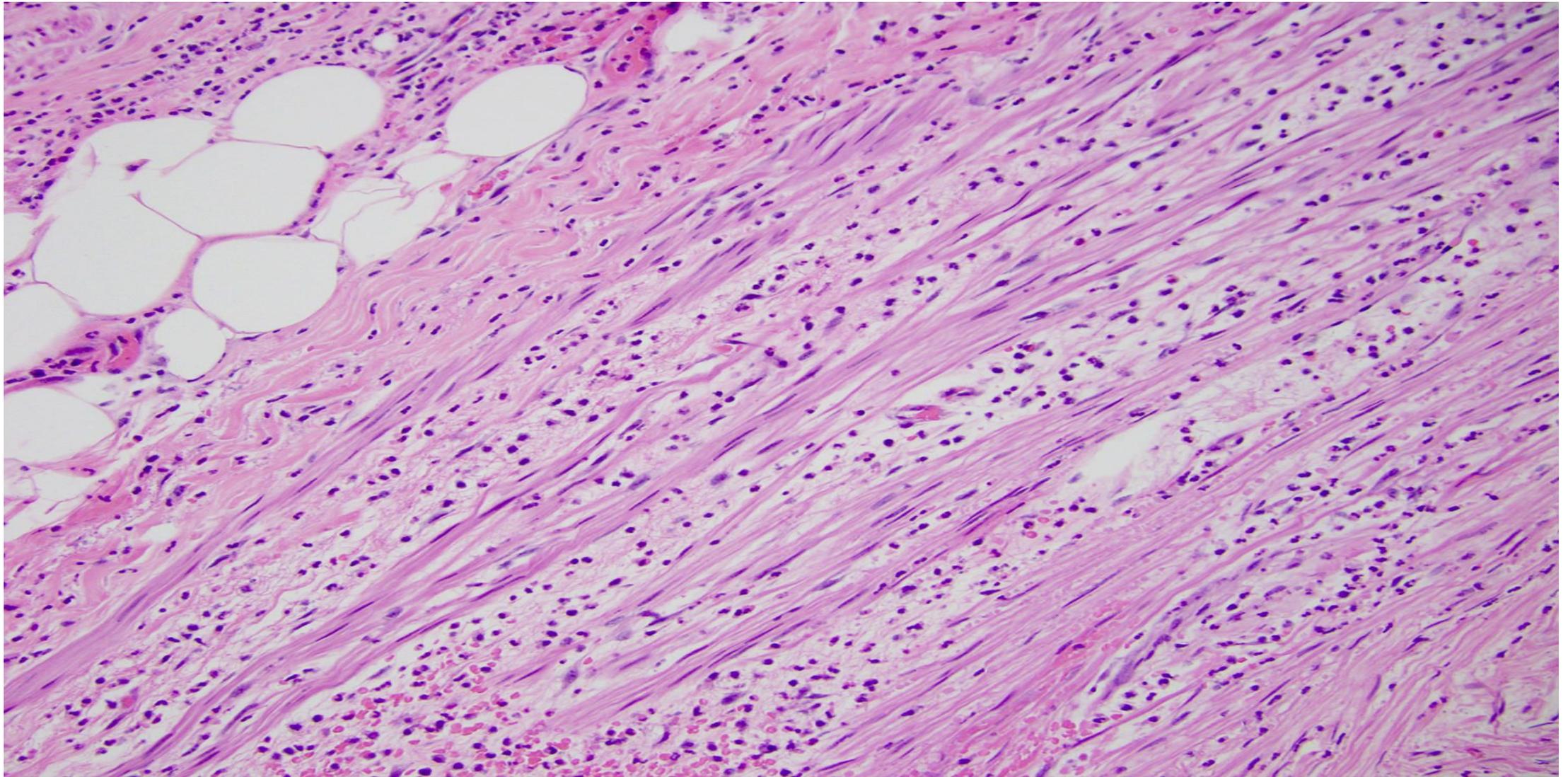
Variable acute inflammation with predominance of neutrophils; involves some or all layers of the appendiceal wall

Process may be divided into acute focal, acute suppurative, gangrenous and perforative

- Early lesions display mucosal erosions and scattered crypt abscesses.
- Later, the inflammation extends into the lamina propria and collections of neutrophils are also seen in the lumen
- Mural necrosis in gangrenous appendicitis

Early acute appendicitis displays mucosal inflammation, erosions and intraluminal neutrophils

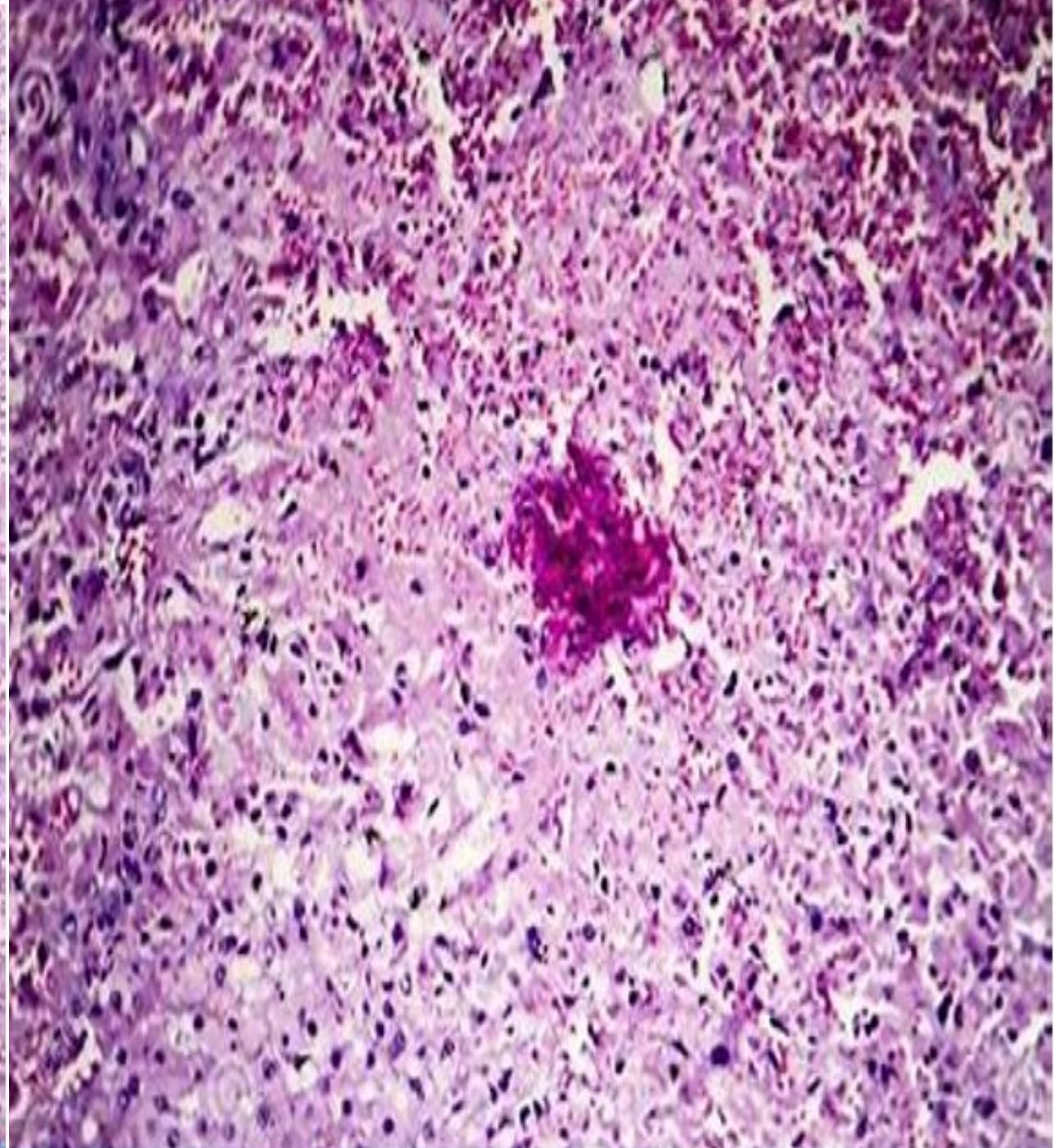
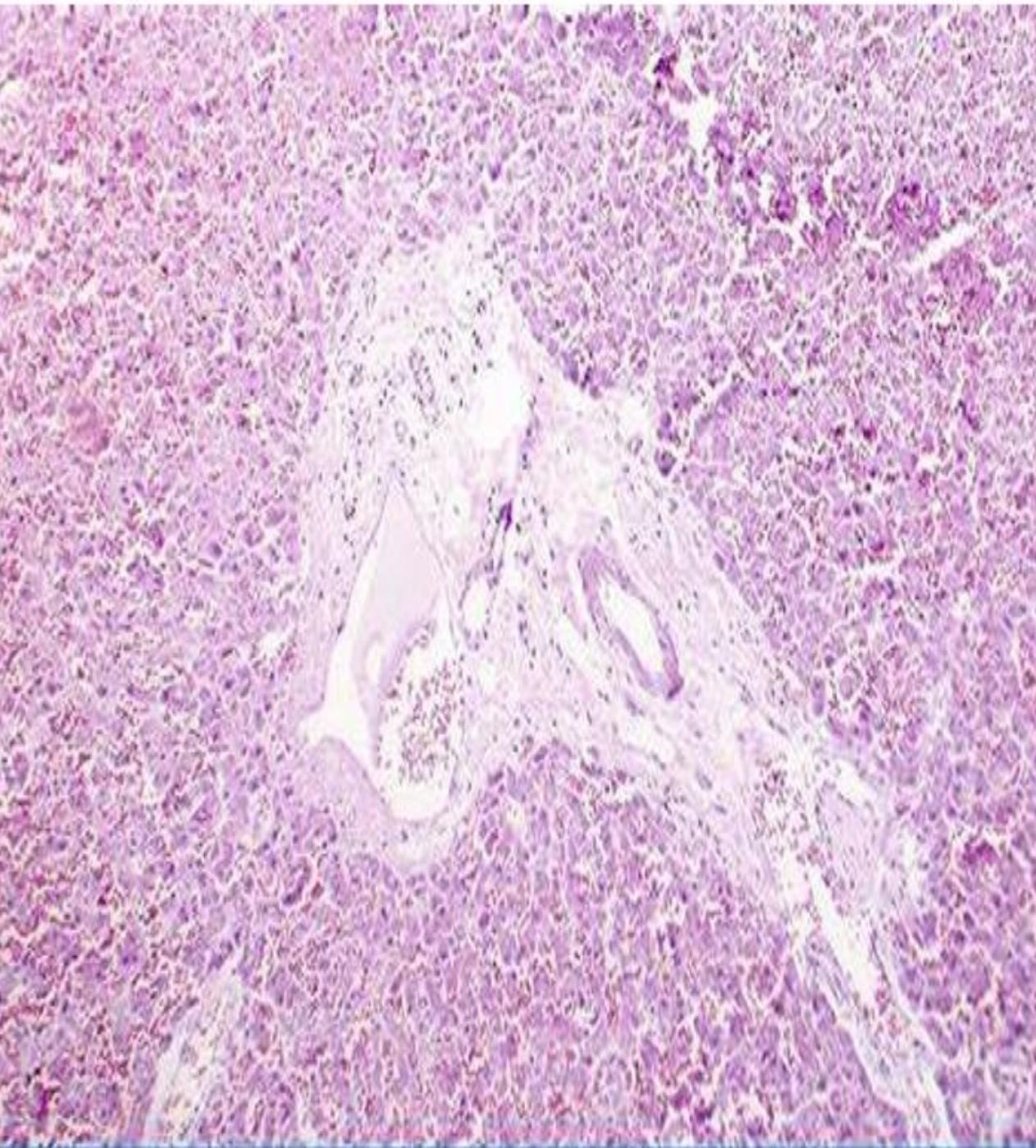




Marked neutrophilic infiltration of appendiceal wall

Acute hepatic congestion

- **Congestive hepatopathy**, is liver dysfunction due to venous congestion, usually due to congestive heart failure.
- The gross pathological appearance of a liver affected by chronic passive congestion is "speckled" like a grated nutmeg kernel; the dark spots represent the dilated and congested hepatic venules and small hepatic veins. The paler areas are unaffected surrounding liver tissue.

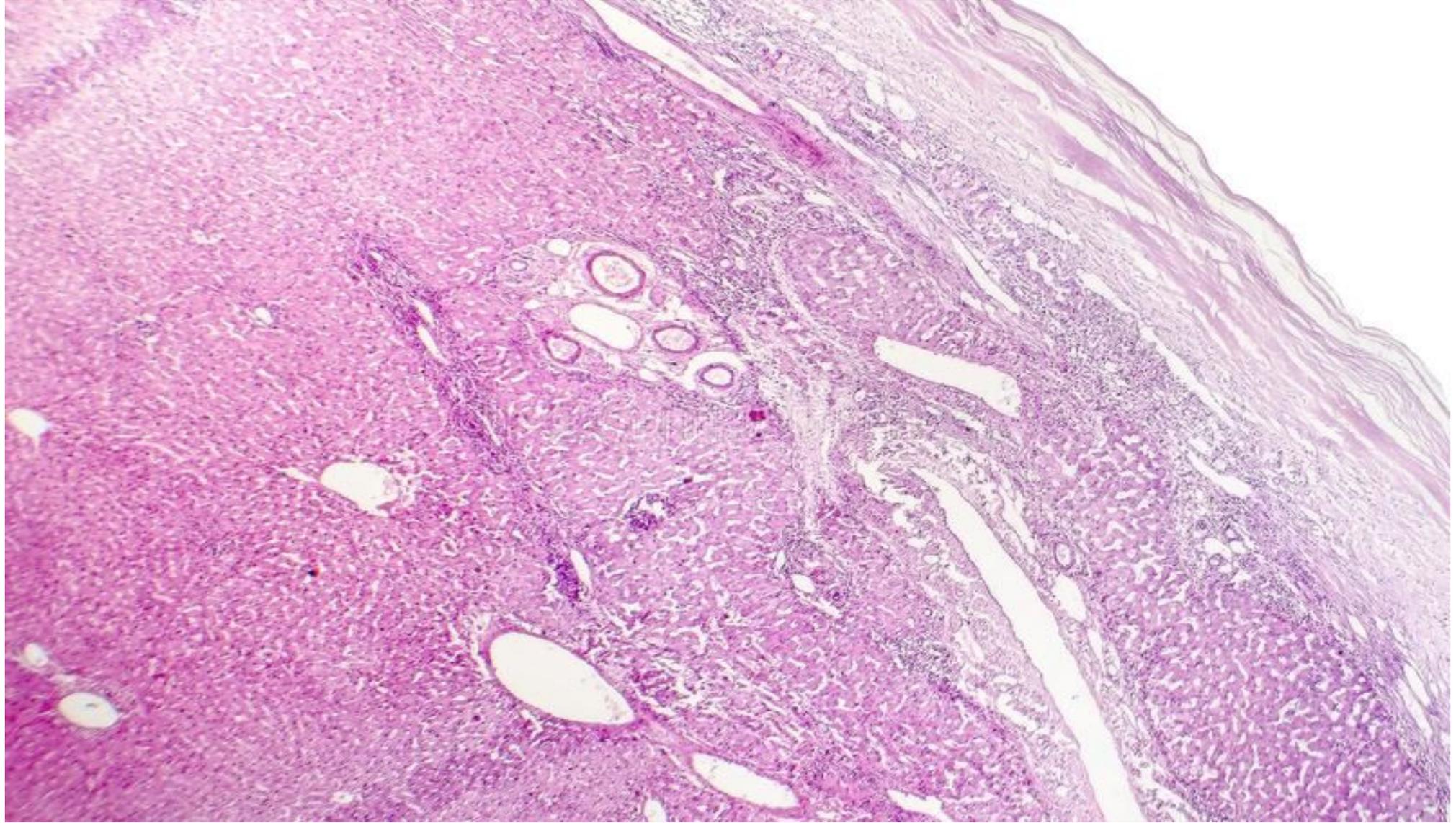


Liver cyst

□ Microscopic (histologic) description

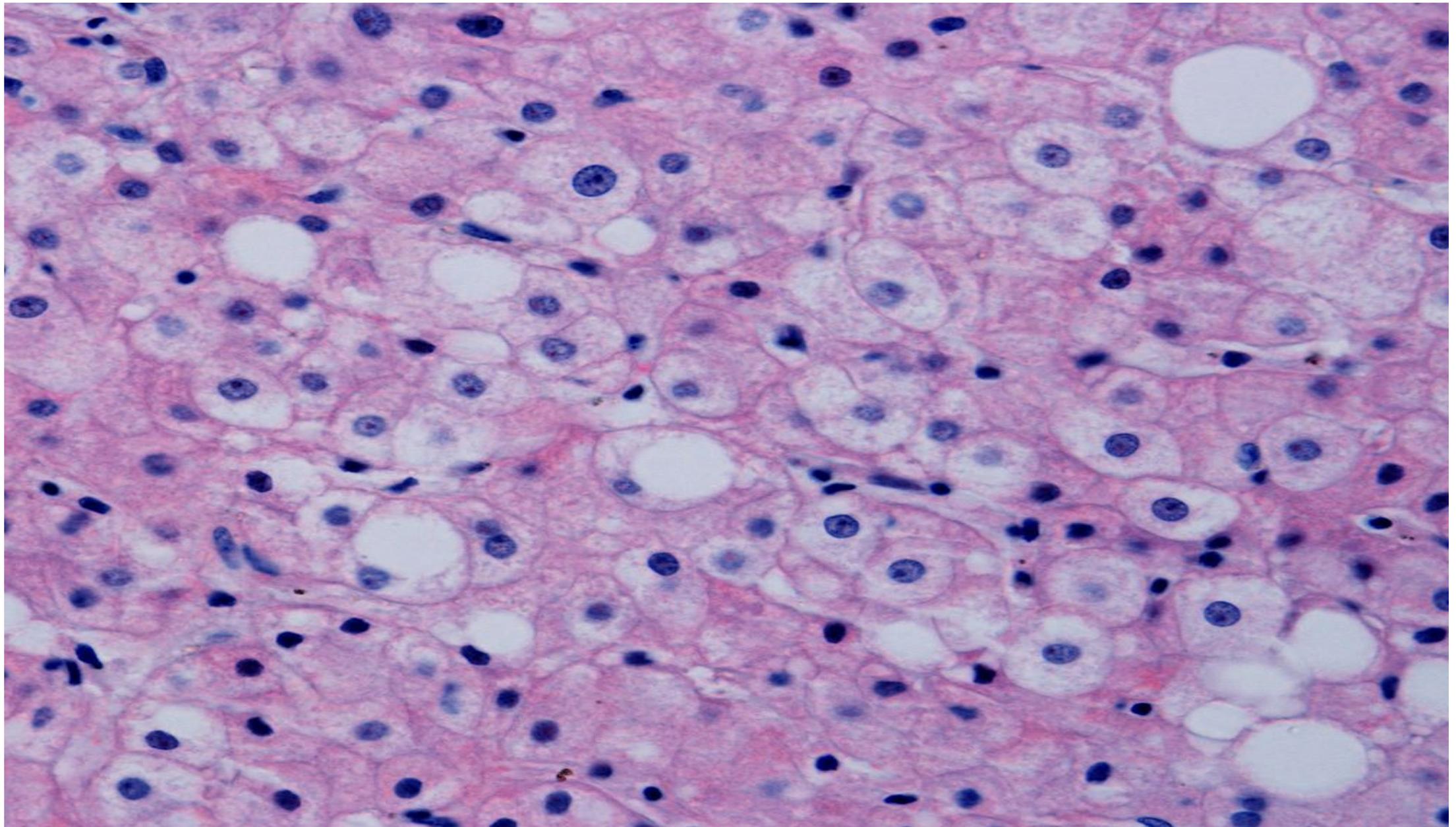
□ Lined by biliary type epithelium (cuboidal to columnar cells)

- Epithelium might be attenuated or denuded
- Epithelial cells contain small amount of mucin or there can be focal mucinous epithelium due to metaplasia
- Cysts lack ovarian type stroma
- Cyst wall is usually fibrotic and can be hyalinized
- Cyst wall may contain islands of hepatocytes, bile ducts, hemorrhage and mild inflammation



Liver steatosis

- is a condition characterized by the accumulation of fat in the liver cells.
- The microscopic appearance of liver steatosis is characterized by **macrovesicular steatosis**. This means that the hepatocytes (liver cells) contain one large vacuole that is similar to mature adipose tissue, and the nucleus is eccentric.
- **Microvesicular steatosis**, which is characterized by multiple small cytoplasmic vacuoles similar to brown fat, is rare and potentially life-threatening.



Hydropic degeneration of liver

- Hydropic degeneration of liver is a pathological condition characterized by the swelling of hepatocytes due to an increase in liver cell moisture.
- This results in the cytoplasm becoming loose and net-like, a condition known as cytoplasmic osteoporosis.
- The condition is one of the most common pathological features of liver diseases.
- It is also known as hepatocellular watery degeneration.

