

CHRONIC CHOLECYSTITIS

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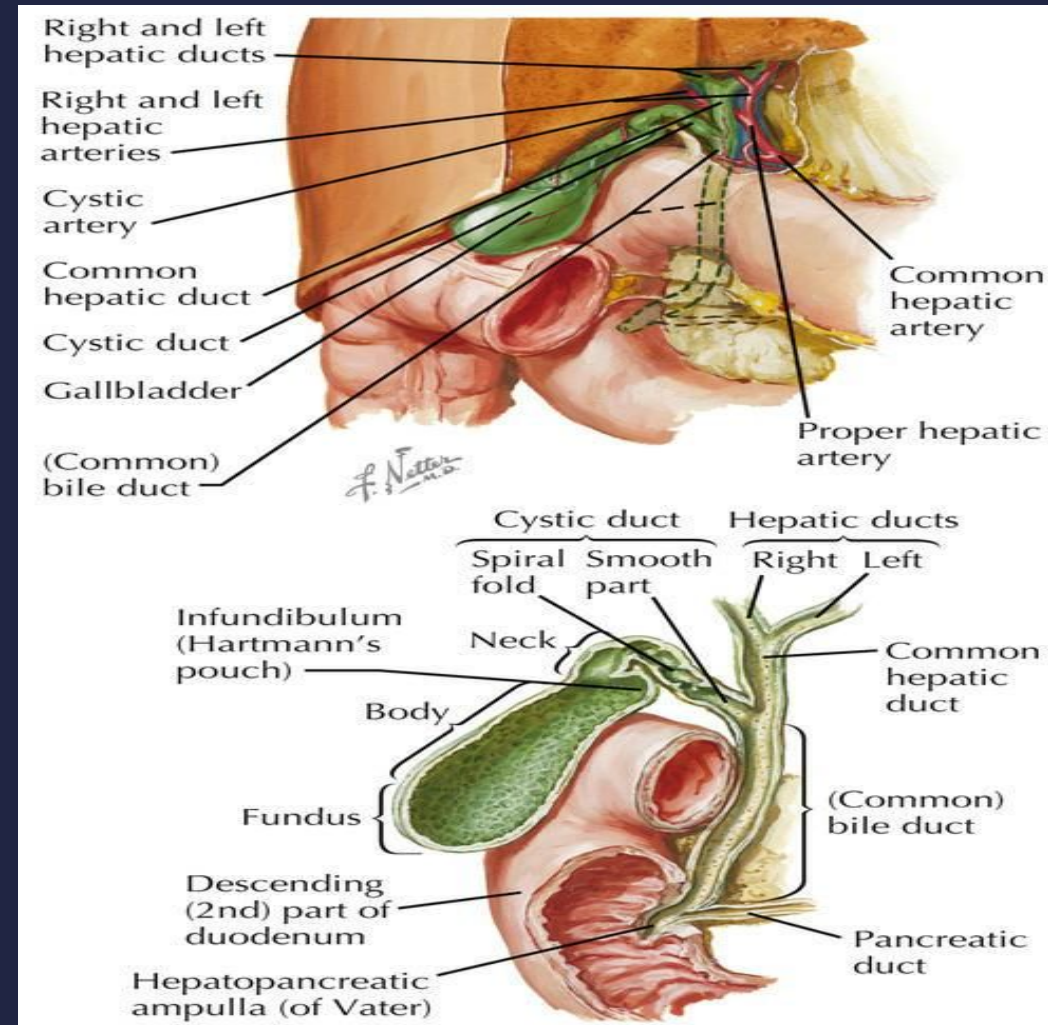




GALL BLADDER

Gallbladder, also known as the cholecyst, is a small hollow organ where bile is stored and concentrated before it is released into the small intestine.

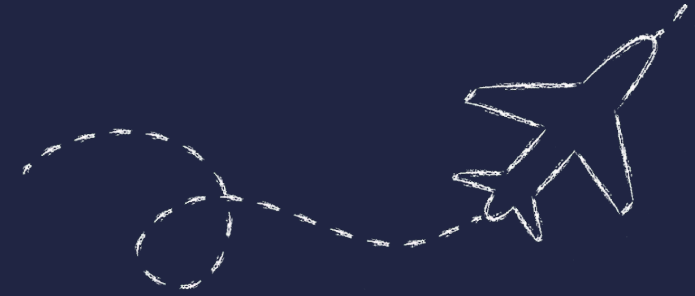
It receives and stores bile, produced by the liver, via the common hepatic duct, and releases it via the common bile duct into the duodenum, where the bile helps in the digestion of fats.





CHOLECYSTITIS

Cholecystitis or inflammation of the gallbladder may be acute, chronic, or acute superimposed on chronic. Though chronic is more common, acute cholecystitis is a surgical Emergency.





CAUSES



GALLSTONES



TUMOR



BILE DUCT BLOCKAGE



INFECTION



SEVERE ILLNESS



TYPES OF CHOLECYSTITIS



CHRONIC



ACUTE

CHRONIC CHOLECYSTITIS



Chronic cholecystitis is the commonest type of clinical gallbladder disease. There is almost constant association of chronic cholecystitis with cholelithiasis.

PATHOGENESIS

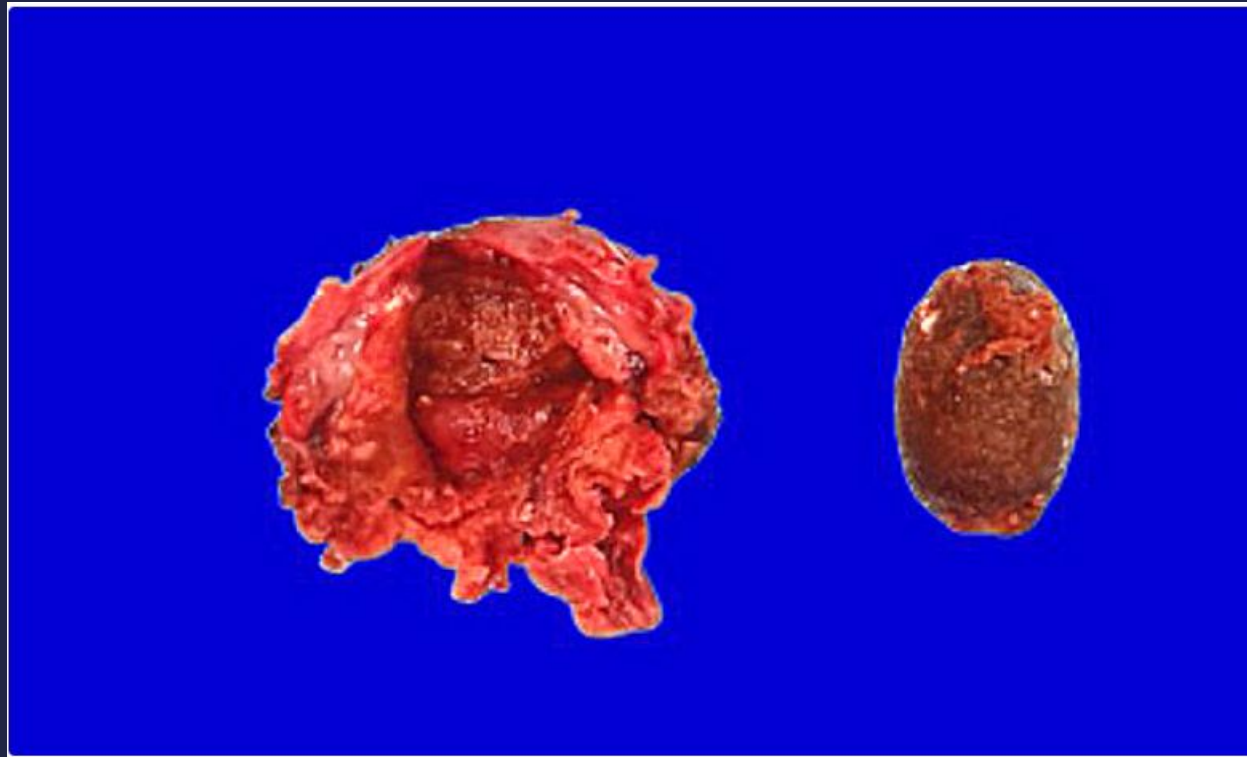
- The association of chronic cholecystitis with mixed and combined gallstones is virtually always present. However, it is not known what initiates the inflammatory response in the gallbladder wall. Possibly, supersaturation of the bile with cholesterol predisposes to both gallstone formation and inflammation. In some patients, repeated attacks of mild acute cholecystitis result in chronic cholecystitis.

GROSS IMAGE



Gross photo of a distended gallbladder with a thin wall and multiple intraluminal pigmented gallstones.

GROSS IMAGE



Gross photo of a contracted gallbladder with a thickened, fibrotic wall, roughened serosal adhesions and a single pigmented gallstone removed from its intraluminal location.

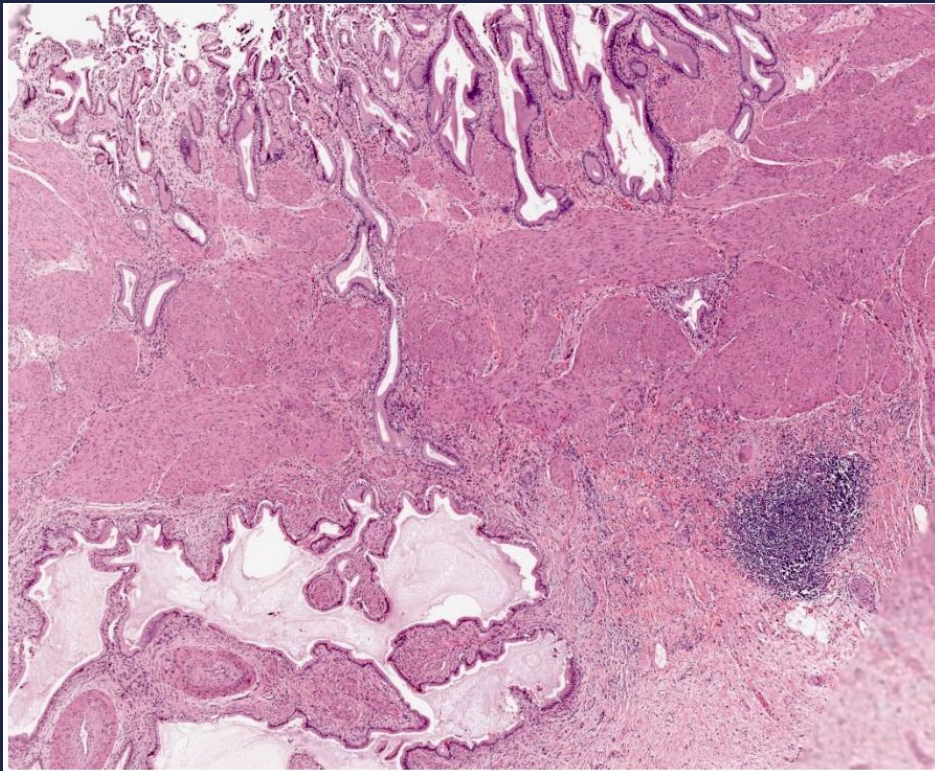


MORPHOLOGIC FEATURES

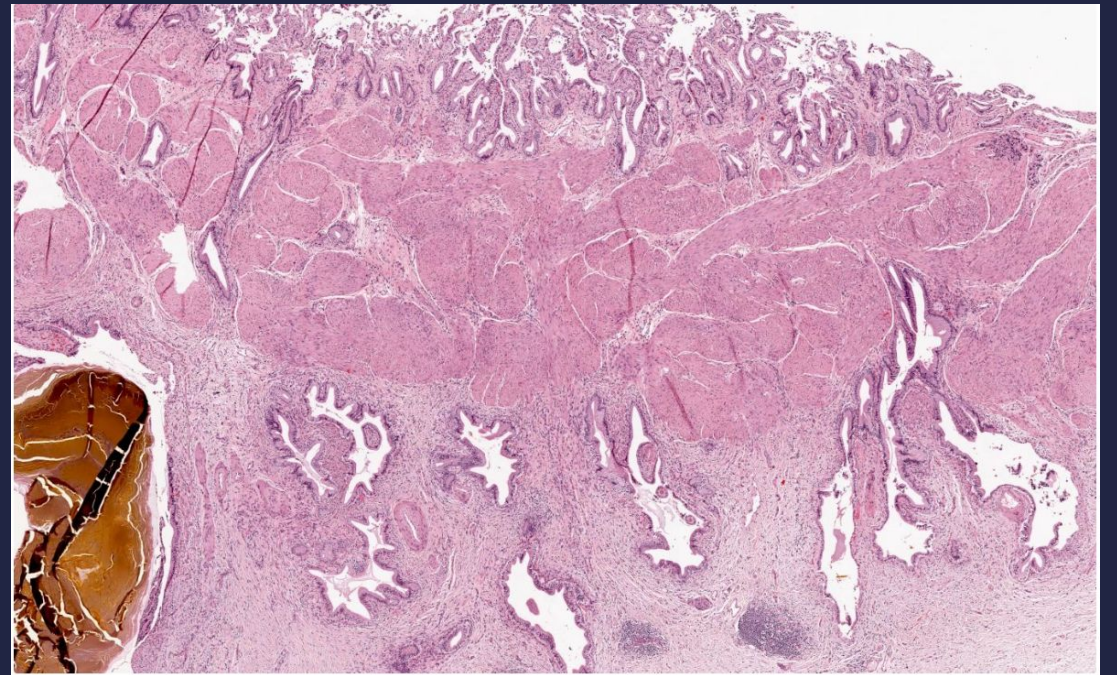


- The gallbladder is generally contracted but may be normal or enlarged .
- The wall of the gallbladder is thickened which on cut section is grey-white due to dense fibrosis or may be even calcified.
- The mucosal folds may be intact, thickened, or flattened and atrophied.
- The lumen commonly contains multiple mixed stones or a combined stone.

Chronic cholecystitis characterized by gallbladder wall thickening secondary to muscularis hypertrophy, with a dilated Rokitansky-Aschoff sinus and adjacent transmural lymphoid aggregate.



Chronic cholecystitis characterized by a thickened gallbladder wall secondary to muscularis hypertrophy with associated Rokitansky-Aschoff sinuses, chronic inflammation and inspissated bile.

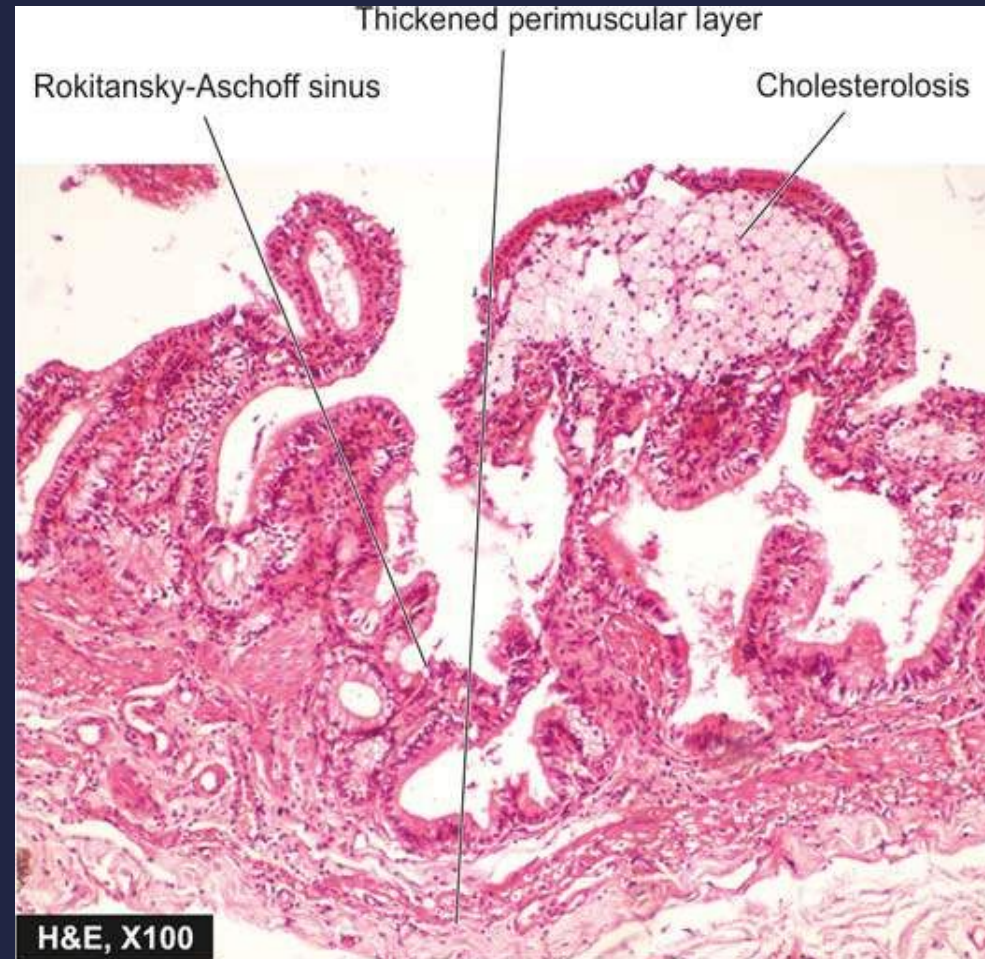




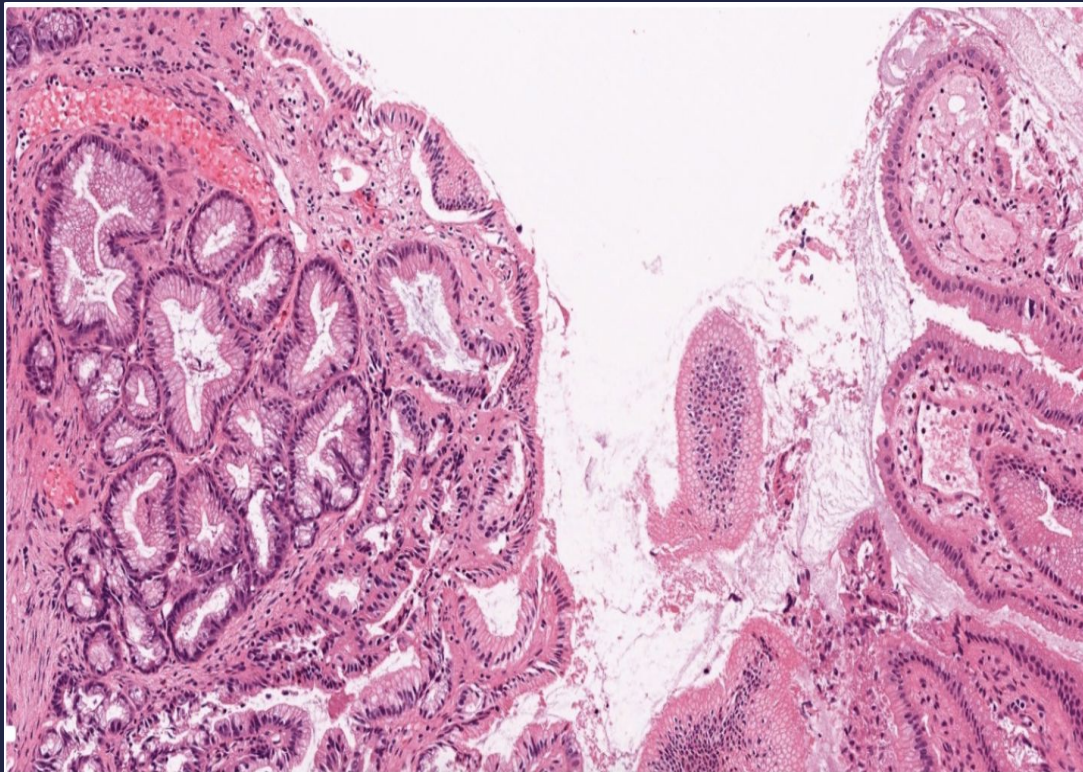
HISTOLOGICAL MORPHOLOGY



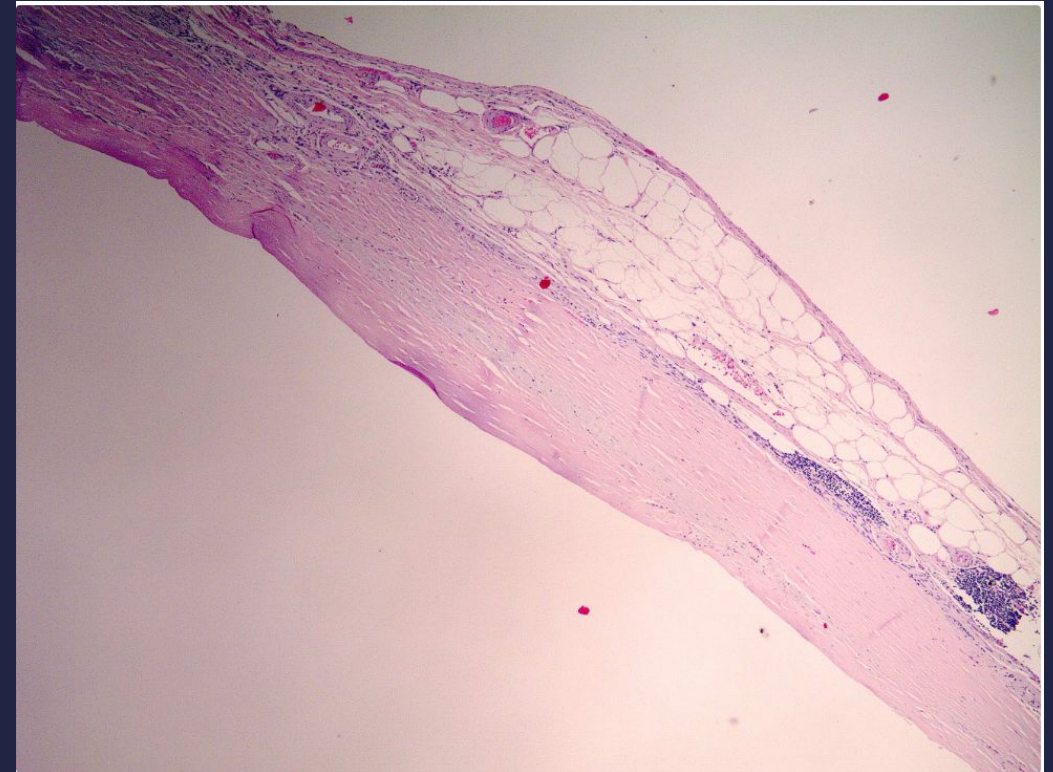
1. Thickened and congested mucosa but occasionally mucosa may be totally destroyed.
2. Penetration of the mucosa deep into the wall of the gallbladder up to muscularis layer to form *RokitanskyAschoff* 'sinuses'.
3. Variable degree of chronic inflammatory reaction, consisting of lymphocytes, plasma cells and macrophages, present in the lamina propria and subserosal layer.
4. Variable degree of fibrosis in the subserosal and subepithelial layers.



Chronic cholecystitis with pyloric gland metaplasia (left), a common form of mucosal metaplasia in this setting, and cholesterosis (right) characterized by clusters of foamy macrophages in superficial lamina propria.



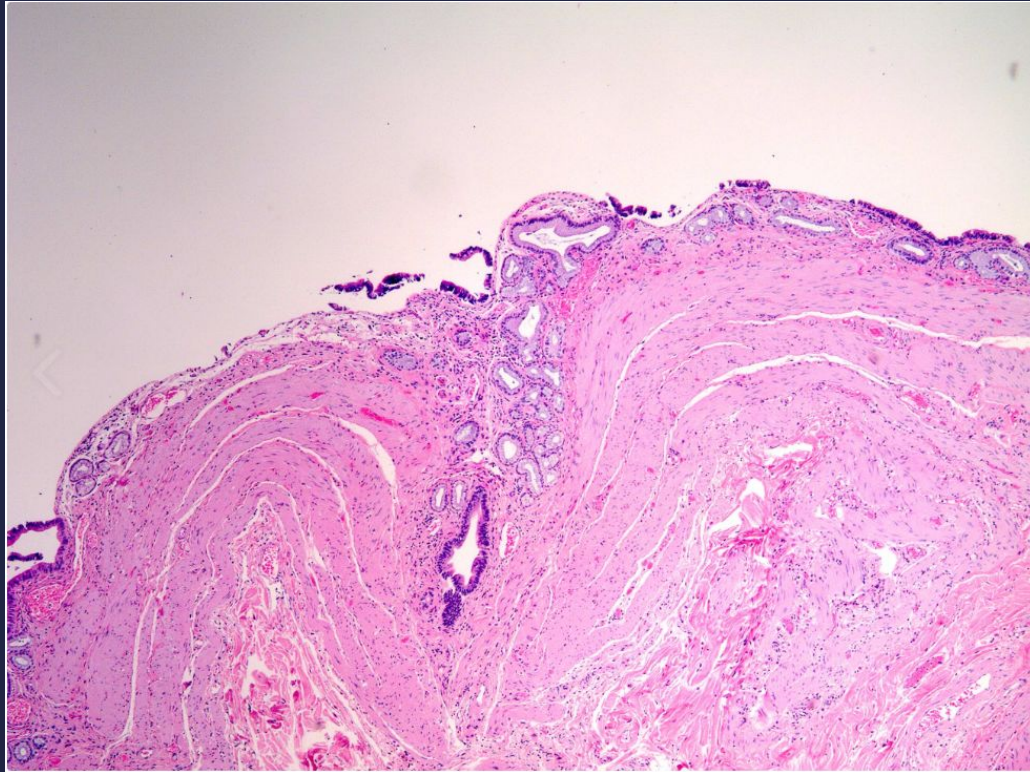
The hyalinizing cholecystitis variant of chronic cholecystitis, characterized by effacement of normal gallbladder wall structures by laminar, paucicellular hyaline fibrosis with patchy lymphoplasmacytic inflammation.



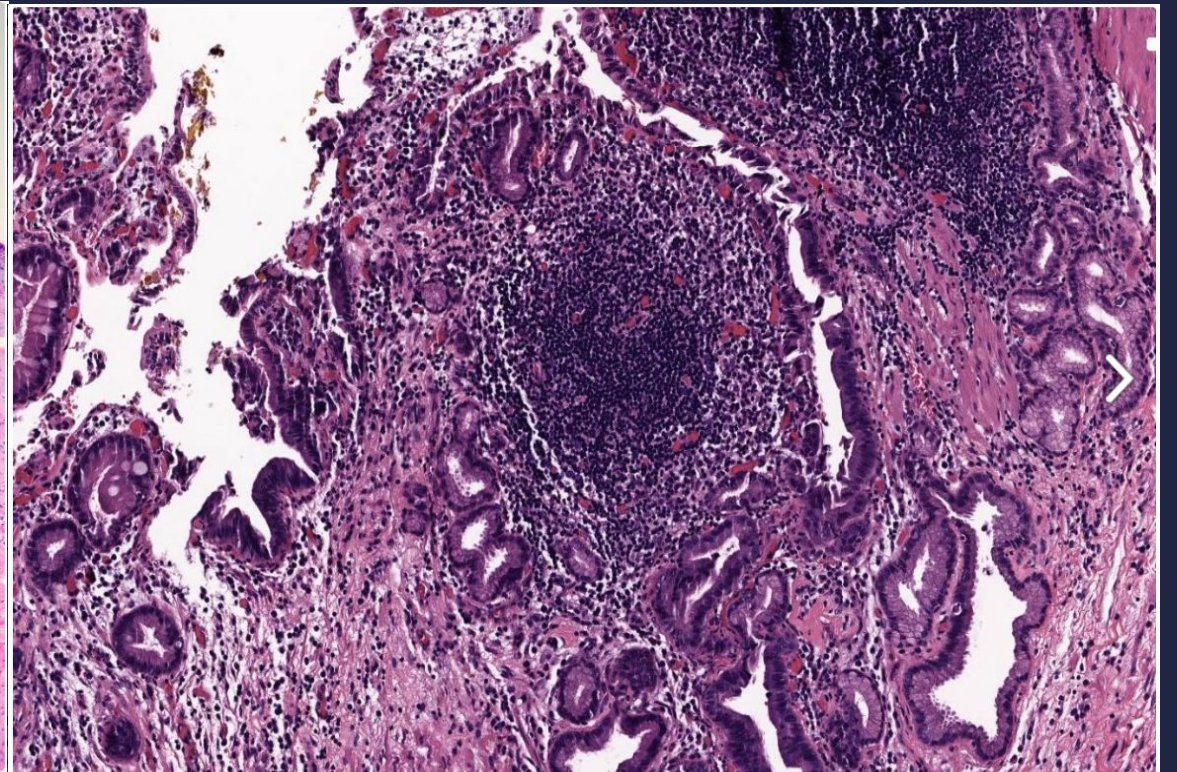
A few morphologic variants of chronic chole cystitis are considered below:

- Cholecystitis glandularis, when the mucosal folds fuse
- together due to inflammation and result in formation of
- crypts of epithelium buried in the gallbladder wall.
- □ Porcelain gallbladder is the pattern when the gallbladder
- wall is calcified and cracks like an egg-shell.
- □ Acute on chronic cholecystitis is the term used for the
- morphologic changes of acute cholecystitis superimposed
- on changes of chronic cholecystitis.

Mucosal atrophy with accessory peribiliary mucous glands and lamina propria fibrosis secondary to chronic cholecystitis.



Chronic cholecystitis with lamina propria based lymphoid aggregates and focal intestinal metaplasia. There is no evidence of dysplasia.





Complications



If untreated, cholecystitis can lead to a number of serious complications, including:

- Infection within the gallbladder. If bile builds up within your gallbladder, causing cholecystitis, the bile may become infected.
- Death of gallbladder tissue. Untreated cholecystitis can cause tissue in the gallbladder to die (gangrene). It's the most common complication, especially among older people, those who wait to get treatment and those with diabetes. This can lead to a tear in the gallbladder, or it may cause your gallbladder to burst.
- Torn gallbladder. A tear (perforation) in your gallbladder may result from gallbladder swelling, infection or death of tissue.



PREVENTION

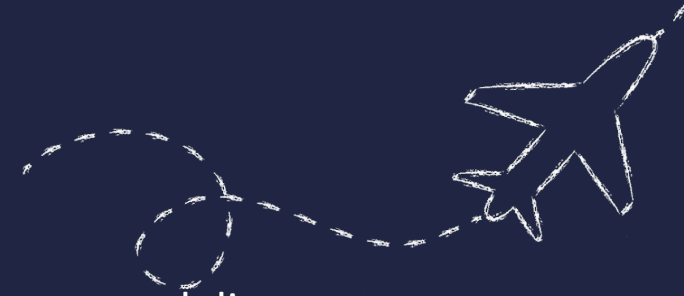


You can reduce your risk of cholecystitis by taking the following steps to prevent gallstones:

- Lose weight slowly. Rapid weight loss can increase the risk of gallstones.
- Maintain a healthy weight. Being overweight makes you more likely to develop gallstones. To achieve a healthy weight, reduce calories and increase your physical activity. Maintain a healthy weight by continuing to eat well and exercise.
- Choose a healthy diet. Diets high in fat and low in fiber may increase the risk of gallstones. To lower your risk, choose a diet high in fruits, vegetables and whole grains.



DIAGNOSTIC

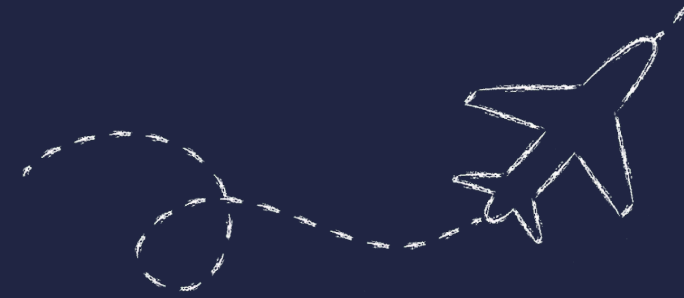


To diagnose cholecystitis, your health care provider will likely do a physical exam and discuss your symptoms and medical history. Tests and procedures used to diagnose cholecystitis include:

- Blood tests. Your health care provider may order blood tests to look for signs of an infection or signs of gallbladder problems.
- Imaging tests that show your gallbladder. Abdominal ultrasound, endoscopic ultrasound, computerized tomography (CT) scan or magnetic resonance cholangiopancreatography (MRCP) can be used to create pictures of your gallbladder and bile ducts. These pictures may show signs of cholecystitis or stones in the bile ducts and gallbladder.
- A scan that shows the movement of bile through your body. A hepatobiliary iminodiacetic acid (HIDA) scan tracks the production and flow of bile from your liver to your small intestine. A HIDA scan involves injecting a radioactive dye into your body, which attaches to bile-producing cells. During the scan, the dye can be seen as it travels with the bile through the bile ducts. This can show any blockages.



CLINICAL FEATURES



Severe pain in your upper right or center abdomen



Pain that spreads to your right shoulder or back



Tenderness over your abdomen when it's touched



Nausea



Vomiting



FEVER



TREATMENT



Treatment for cholecystitis usually involves a hospital stay to control the inflammation in your gallbladder. Sometimes, surgery is needed.

At the hospital, your health care provider will work to control your symptoms. Treatments may include:

- Fasting. You may not be allowed to eat or drink at first in order to take stress off your inflamed gallbladder.
- Fluids through a vein in your arm. This treatment helps prevent dehydration.
- Antibiotics to fight infection. If your gallbladder is infected, your provider likely will recommend antibiotics.
- Pain medications. These can help control pain until the inflammation in your gallbladder is relieved.
- Procedure to remove stones. You may have a procedure called an endoscopic retrograde cholangiopancreatography (ERCP). During this procedure that uses dye to highlight the bile ducts, instruments can be used to remove stones blocking the bile ducts or cystic duct.



TREATMENT



- Gallbladder drainage. In some cases, such as when surgery to remove the gallbladder is not an option, gallbladder drainage (cholecystostomy) may be done to remove infection. Drainage is done through the skin on the abdomen (percutaneous) or by passing a scope through the mouth (endoscopic).
- Your symptoms are likely to decrease in 2 to 3 days. However, gallbladder inflammation often returns. Most people with cholecystitis eventually need surgery to remove the gallbladder.

Gallbladder removal surgery

- The procedure to remove the gallbladder is called a cholecystectomy. Usually, this is a minimally invasive procedure, involving a few tiny cuts (incisions) in your abdomen (laparoscopic cholecystectomy). An open procedure, in which a long incision is made in your abdomen, is rarely required.
- The timing of surgery depends on the severity of your symptoms and your overall risk of problems during and after surgery. If you're at low surgical risk, surgery may be performed during your hospital stay.
- Once your gallbladder is removed, bile flows directly from your liver into your small intestine, rather than being stored in your gallbladder. Even without your gallbladder you can still digest food.



Thank you for listening