

SNS COLLEGE OF NURSING



Saravanampatti (po), coimbatore.

DEPARTMENT OF NURSING COURSE NAME : BSC (NURSING) II YEAR SUBJECT :MEDICAL SURGICAL NURSING I UNIT: IV DISORDERS OF DIGESTIVE SYSTEM TOPIC : CHOLELITHIASIS



## ANATOMY AND PHYSIOLOGY



The gallbladder is a small, pear-shaped organ under the liver. Both the liver and the gallbladder are behind the right lower ribs. In adults, the gallbladder is usually about 3 to 4 inches long and normally no wider than an inch.



### ANATOMY AND PHYSIOLOGY



 The gallbladder concentrates and stores bile, a fluid made in the liver. Bile helps digest the fats in foods as they pass through the small intestine. Bile is made by the liver and is either sent into ducts that carry it to the small intestine, or stored in the gallbladder and released later.





When food (especially fatty food) is being digested, the gallbladder squeezes and sends bile through a small tube called the cystic duct.

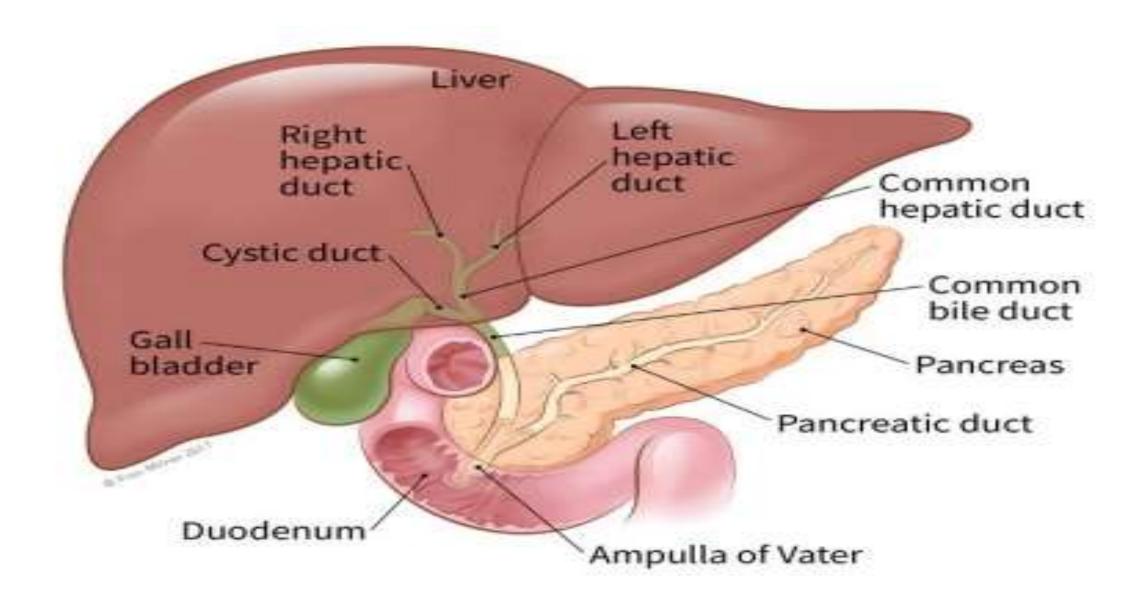
The cystic duct joins up with the common hepatic duct (which comes from the liver) to form the common bile duct.





The common bile duct joins with the main duct from the pancreas (the pancreatic duct) to empty into the first part of the small intestine (the duodenum) at the ampulla of Vater.

The gallbladder helps digest food, but you don't need it to live. Many people have their gallbladders removed and go on to live normal lives.





DEFINITION



The presence of stones in the gallbladder is referred to as cholelithiasis, from the Greek chol- (bile) + lith- (stone) + -iasis (process). If gallstones migrate into the ducts of the biliary tract, the condition is referred to as choledocholithiasis



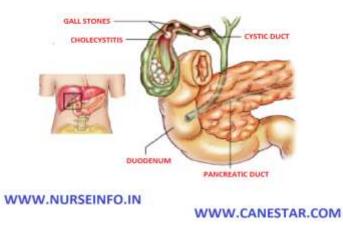
DEFINITION



• Cholelithiasis is a condition characterized by the formation of

stone in the gall bladder.

#### CHOLELITHIASIS

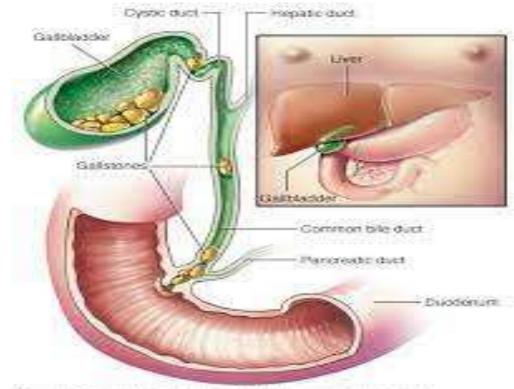




### **TYPES OF GALL STONES**



- **1.Chole Sterol Stones**
- **2.Pigment Stones** 
  - **Black pigment stones**
  - **Brown stones**
- 3. Mixed Stones





# ETIOLOGY AND RISK FACTORS



- Cirrhosis of Liver
- Diabetes
- Infections of biliary tract
- Disease which cause RBC destruction
- Bone marrow transplantation
- Use of oral contraceptives
- Prolonged IV feeding







- Define cholelithiasis
- Enumerate the types of gall stones





### PATHOPHYSIOLOGY



Decreased bile acid synthesis Increased cholesterol synthesis in the liver Super saturation of bile with cholesterol Formation of precipitates Gall stones (Cholelithiasis) Inflammatory changes (Cholecystitis)



## SIGNS AND SYMPTOMS



- Sharp or dull pain in upper abdominal region
- Clay- colored stools
- Yellowish coloration of skin



### **DIAGNOSTIC EVALUATION**



- History collection
- Physical Examination
- Liver function tests
- Gall bladder radionuclide scan
- Percuaneous transhepatic cholangio-gram(PTCA)
- Pancreatic enzymes analysis



#### ASSESSMENT



- List down the signs and symptoms of cholelithiasis
- Enumerate the diagnostic tests



### SURGICAL MANAGEMENT

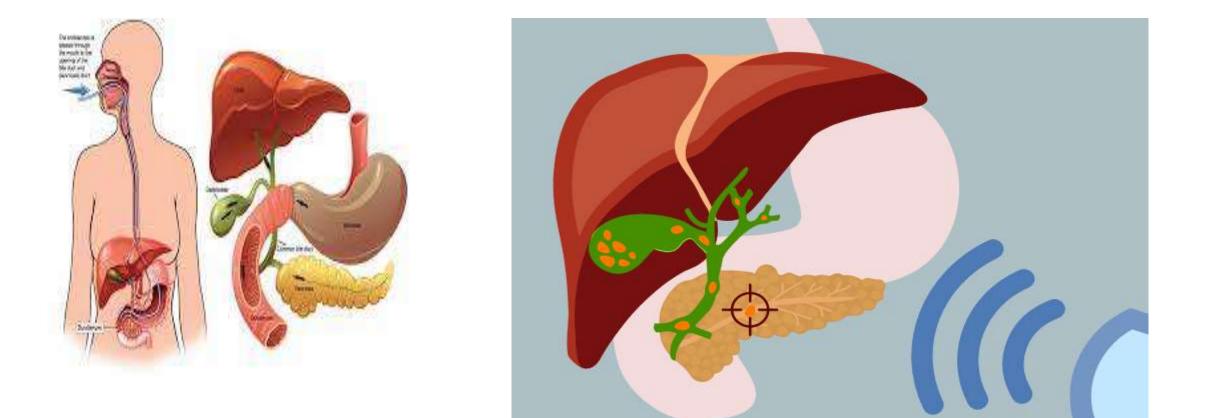


- Laparoscopic cholecystectomy
- Open cholecystectomy
- Endoscopic retrograde cholangio-pancreatography (ERCP)
- Shock wave lithotripsy (ESWL) is indicated when surgery is not possible



### **SURGICAL MANAGEMENT**







### PATIENT EDUCATION



#### ➤Managing Pain

- Sitting upright in bed or a chair or walking may ease the discomfort.
- > Analgesic medications as needed & as prescribed
- > Report to surgeon if pain is unrelieved even with analgesic use.
- ➢ Resuming Activity-
- Light exercise (walking) immediately. 
  Shower or bath after 1 or 2 days.
- Drive a car after 3 or 4 days. Avoid lifting objects exceeding 5 pounds after surgery, usually for1 week. Caring for the Wound



## PATIENT EDUCATION



Check puncture site daily for signs of infection. Wash puncture site with mild soap & water. Allow special adhesive strips on the puncture site to fall off. Do not pull them off.

### Resuming Eating

Resume normal diet.



PATIENT EDUCATION



- If you had fat intolerance before surgery, gradually add fat back into your diet in small increments. Follow-Up Care
- Report any sign & symptoms of infection at or around the puncture site: redness, tenderness, swelling, heat, or drainage.
- Fever of 37.7°C (100°F) or more for 2 consecutive days. *Fever of 37.7°C* (100°F) or more for 2 consecutive days.
- ≻Nausea, vomiting, or abdominal pain



#### ASSESSMENT



- DEFINE THE CHOLELITHIASIS
- LIST DOWN MANAGEMENT FEATURES
- DESCRIBE THE NURSING MEASURES



REFERENCES



- BRUNNER & SUDDARTH, MEDICAL SURGICAL NURSING, 1<sup>ST</sup> EDITION
- LEWIS'S, MEDICAL SURGICAL NURSING, 9<sup>TH</sup> EDITION
- DAVIDSON'S, PRINCIPLES AND PRACTICE OF NURSING, 24<sup>TH</sup> EDITION





