

Surgical Jaundice

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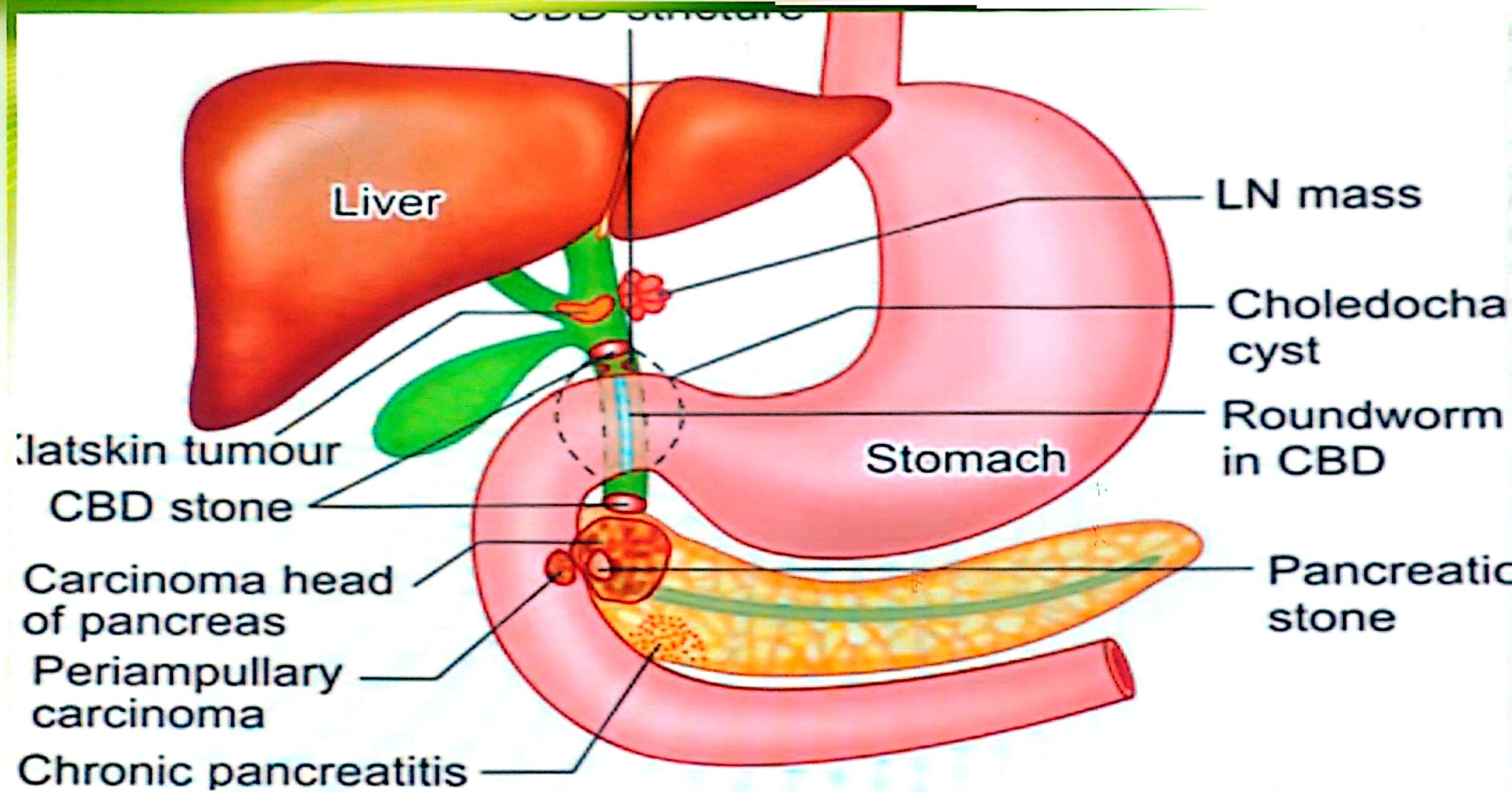
Definition of Surgical/Obstructive Jaundice

- It is the jaundice that develops due to biliary obstruction, partial or complete or intermittent.
- It causes conjugated hyperbilirubinaemia.
- Normal Serum Bilirubin level is 0.2-0.8 mg%
- Scleral icterus is visible when serum bilirubin level exceeds 2.5 mg%



Classification of causes of obstructive jaundice

1. **Congenital** : Biliary atresia, choledochal cyst
2. **Inflammatory** : Acalculous cholangitis, Sclerosing cholangitis
3. **Obstructive** : CBD stones
 - Biliary stricture
 - Parasitic infestation
4. **Neoplastic** :
 - Carcinoma of head or periampullary region of pancreas
 - Cholangiocarcinoma
 - Klatskin tumor
5. **Extrinsic compression** of CBD by lymph nodes or tumor.



Clinical Features

- Severe Jaundice
- Pruritis
- Fever
- Loss of weight & appetite
- Pain in the hypochondrium, palpable gallbladder

Effects of Obstructive Jaundice

- **In liver**-Enlarged green bile stained liver(hydrohepatosis) shows dilated intrahepatic biliary radicles.Once intraductal CBD pressure increases bile secretion from liver is reduced causing formation of "white bile" in CBD.Biliary cirrhosis may develop.
- **In the Biliary tree**-Recurrent inflammation-Cholangitis-Fibrosis.
- **In Bowel**-Absence of bile from bowel impairs digestion, reduces fat absorption making faeces bulky & fatty.Vit K Absorption is reduced causing fall in prothrombin level raising PT-INR
- Retention of Bile salt & Bile pigment in the body & blood.
- Altered coagulation profile;hepatorenal syndrome & renal failure.

Investigations for obstructive Jaundice

- **Serum Bilirubin:** Normal value is less than 1.0 mg%. Both direct & indirect bilirubin are assessed. Direct is increased in obstructive jaundice.
- **Serum Albumin, Globulin & A:G ratio.**
- **Prothrombin time-**Normal value is 12-16 secs. It is significant if it is more than 4 times from the control or more than one and half times the control. It is corrected by injection vit K, 10 mg IM OD for 5 days or FFP-5-10 units
- **Serum Alkaline phosphatase(ALP), SGPT, SGOT**
- USG of whole abdomen
- MRCP, ERCP

Pre operative preparation of patient with obstructive jaundice

- Adequate hydration
- Blood transfusion incase of anemia
- Antibiotics like 3rd generation cephalosporin
- Injection vit K IM 10 mg for 5 days.
- Oral lectulose
- Mannitol 100-200 ml BD IV to prevent hepatorenal syndrome.
- Preoperative decompression is indicated if bilirubin is >12 mg%

Treatment of obstructive Jaundice

- CBD stones-
 - ERCP stone removal
 - Choledocholithotomy
- CA head of pancreas-
 - Whipple's operation or tripple bypass
- Biliary stricture-
 - ERCP stenting
 - Choledochojejunostomy
 - Roux-en-Y hepaticojejunostomy

Post operative Management

- Monitoring with Prothrombin time, Bilirubin, Albumin, Creatinine and electrolyte estimation.
- FFP, Blood transfusion
- Antibiotics
- Observation for septicaemia, Haemorrhage, pneumonia
- Care of T tube and drains
- T-Tube cholangiogram
- TPN, CVP line nasogastric tube , urinary catheter

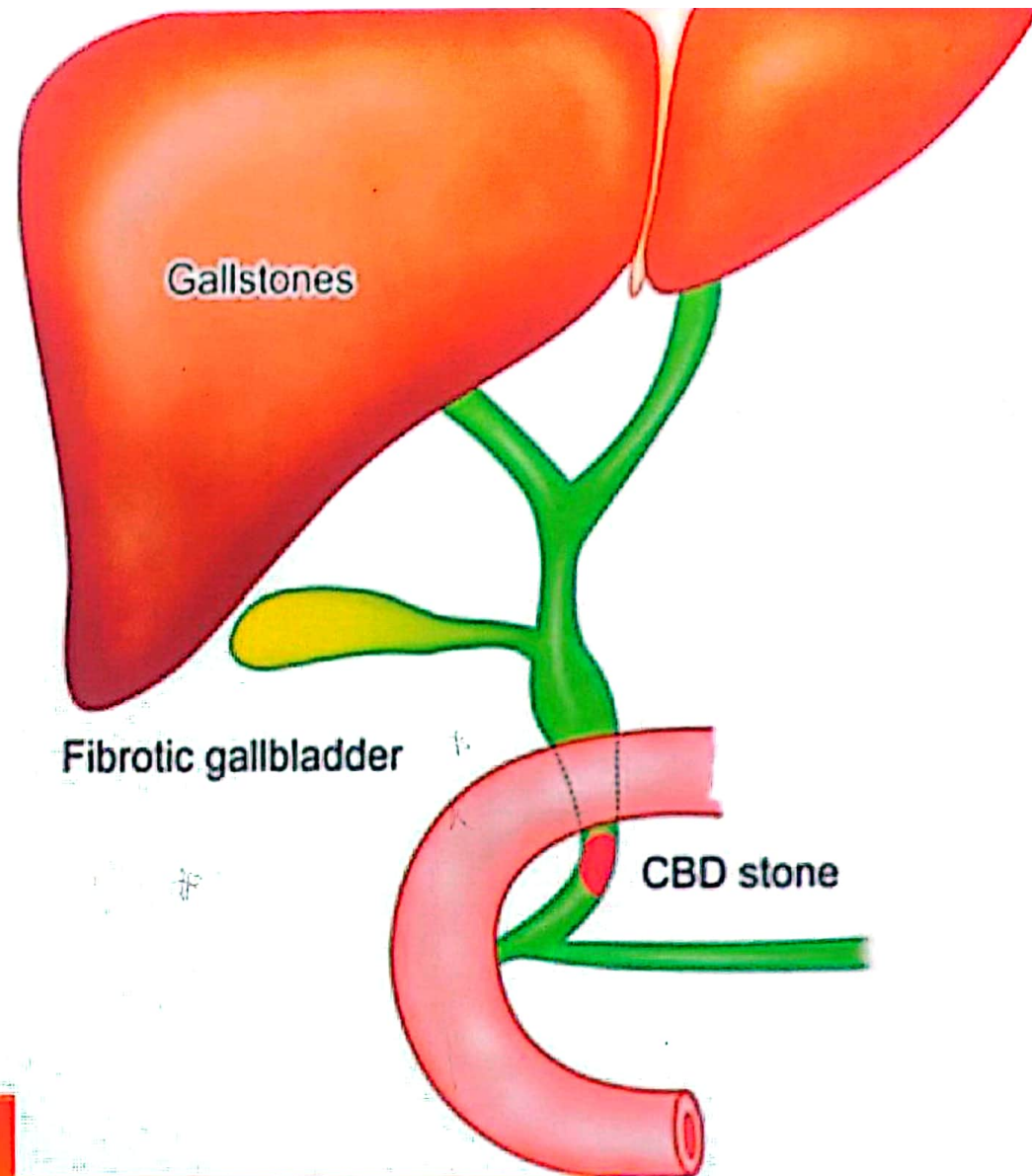
Problem based questions

- A 45-year-old man presented with recurrent attacks of intermittent jaundice associated with abdominal pain and fever for last 6 months.
1. Write the probable diagnosis.
 2. Name one biochemical and one imaging investigation for diagnosis.
 3. How will you prepare the pt for surgery.

- A 55-year-old male presented with yellow discoloration of eyes for 4 months. He has generalized itching and pale stool. There is non tender globular swelling in right hypochondriac region.
 1. Write 4 probable causes of such condition
 2. Write 4 diagnostic investigations.
 3. How will you prepare the patient for operation

F. Courvoisier's Law

- Palpable, non-tender gallbladder with jaundice:
Unlikely due to gallstones
Suggests periampullary or pancreatic malignancy



C. Chronic Cholecystitis

- **Result of:**

Recurrent acute inflammation

- **Features:**

1. Contracted gallbladder
2. Thickened fibrotic wall
3. Reduced function