

Summary for cholelithiasis from what the doctor said during the lecture

- Anatomy of the porta hepatis
 1. Hepatic artery
 2. Bile duct
 3. Portal vein
 4. NO HEPATIC VEIN
- Patient with gall stone and asymptomatic: do nothing
- Symptomatic patients require surgery, could be electively done or urgent Remember that jaundice is an advanced sign
- The severity of signs and symptoms/complications determine if this patient should do the surgery electively or Operate now
- Symptoms/signs and complications of cholelithiasis:
 1. Pain
 - Ask about site: RUQ
 - Character: colicky
 - Timing : usually at night
 - Usually after fatty food
 - After eating the stomach increase in size and that releases CCK which causes gallbladder contraction on the stones > pain!
 - Radiating to the right shoulder
 - Episodes?
 - Ask if this is the first episode, he will usually say NO
 - Then ask him why he came to the hospital this time?
 - answer: because the pain didn't go away on its own
 - Associated symptoms? N&V
 2. Jaundice
 - Means there is an obstruction in the bile duct that causes obstruction to the flow of bile from the liver to the small bowel
 - Look for it in sclera (specially black people), skin and mucosa
 - Obstructive type
 - The bilirubin level in the blood is at least double the normal
 - Upper normal level is 17 mmol
 - The whiter your skin is the less bilirubin you need to develop jaundice
 - The darker your skin is the more bilirubin you need to develop jaundice
 - Pale stool
 - Dark urine
 - The 4 questions to ask for jaundice
 - Is there discoloration in your eye or skin?
 - Is your stool pale?
 - Is your urine colour dark?
 - Do you have itching?

3. Pancreatitis
 4. Cholecystitis
 - Inflammation in the gallbladder
 - The pain is CONTINUOUS
 - Febrile patient (fever)
 - High WBC count due to inflammation
 - See the difference between cholecystitis and cholelithiasis?
 5. Infection
 6. Cholangitis
 - Identify it by Charcot's triad
 - Fever
 - Jaundice
 - Right upper quadrant pain RUQ
 - Low BP > send to ICU for inotropes
- Imaging
 - US
 - Presence of stones
 - Thickening of the gallbladder wall
 - Indicate inflammation: If you suspect acute cholecystitis then admit
 - Normal is 2-3 mm
 - Dilated biliary system
 - Intra hepatic or extra
 - Indicate obstruction
 - Patients with acute cholecystitis
 1. Admit
 2. Evaluate patient
 - Pain for 24-48 hours : operate
 - Pain for more than 48 hours
 - IV antibiotics
 - Stabilize the patient
 - Then operate
 - Why?
 - Because operating on a patient while the gallbladder is acutely inflamed has been shown to have more complications
 - Remove stones!
 1. To relieve obstructive jaundice : admit for ERCP
 2. ERCP
 - Endoscopic retrograde cholangiopancreatography
 - Endoscope + guide wire + contrast + x-Ray (fluoroscopy)
 - First we do sphincterotomy to widen the diameter of the sphincter of Oddi
 - Take the stone out by the basket
 - Complications of surgery
 1. Bile leak
 2. Bleeding