

# cholecystitis

## symptoms

- RUQ pain is a common symptom of biliary tract disease
- epigastric pain is predominant symptom in up to 60%
- radiation to the left upper back is more commonly associated with biliary tract disease than other upper GI pathology
- pain usually begins between 9pm and 4am & persists beyond 6 hrs
  - nausea, vomiting & anorexia are seen
  - fevers and chills are not uncommon
- pain progresses from dull, poorly localised mid-upper abdominal pain to sharp, well-localised mid-upper abdominal pain

## signs

- moderate to severe distress
- signs of systemic toxicity
- tender RUQ with evidence of localised peritoneal irritation, distention & hypoactive bowel sounds
- Murphy's sign is 97% sensitive for acute cholecystitis
- volume depletion is common
- jaundice is seen with prolonged obstruction or haemolysis

## investigations

1. bloods:
  - chronic anaemia may be seen in pigment stones due to haemolysis
  - WCC, bili and LFTs are often normal
  - amylase should be obtained to exclude pancreatis
  - bHCG
2. X-rays:
  - 10-20% of stones are visible of AXR
  - CXR can be used to exclude RLL pneumonia
3. 12 lead ECG to exclude MI
4. USS has a sensitivity of 94% and a specificity of 78%

## treatment

1. iv fluids
2. NBM
3. pain control (opioid analgesia)
4. antiemetics
5. antibiotics
  - single agent therapy with 3rd generation cephalosporin in non-septic patients
  - triple therapy in obviously infected patients
6. cholecystectomy

## definition

- acute cholecystitis involves mechanical, chemical & infectious factors
  - increased intraluminal pressure culminates in visceral ischaemia
  - chemical inflammation with release of lysolecithin, phospholipase A & prostaglandins results in direct mucosal injury
  - bacteria are involved in 50-80% of patients
  - acalculus cholecystitis occurs in 5-10% of patients with acute cholecystitis
  - acalculus cholecystitis tends to have a more severe and malignant course
- complications include pancreatitis, ascending cholangitis, gallbladder empyema, empysematous cholecystitis (gallbladder gangrene)

## aetiology

- risk factors include:
- increasing age
  - female sex
  - parity
  - obesity
  - diabetes
  - profound weight loss
  - fasting
  - cystic fibrosis
  - malabsorption syndromes
  - various medications (OC & clofibrate)
  - family tendency
- pigment stones are associated with:
- Asian descent
  - chronic biliary tract disease
  - parasitic infection (Ascaris)
  - chronic liver disease (particularly related to ETOH)
  - chronic intravascular hemolysis
  - hepatitis
- bacterial pathogens involved include:
1. enterobacteriaceae (70%) - E. coli, Klebsiella
  2. enterococci (15%)
  3. bacteroides (10%)
  4. Clostridium (10%)
  5. group D Strep & Staph
- acalculus cholecystitis is associated with:
- multiple trauma
  - extensive burn injury
  - prolonged labour
  - major surgery
  - vasculitis