Cholecystitis

**Definition**
- Acalculus cholecystitis occurs in 5-10% of patients with acute cholecystitis.
- Acalculus cholecystitis tends to have a more severe and malignant course.

**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

**Signs**
- 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.
- Pain progresses from dull, poorly localised mid-upper abdominal pain to sharp, well-localised mid-upper abdominal pain.
- 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.

**Symptoms**
- Nausea, vomiting & anorexia are seen.
- Fevers and chills are not uncommon.
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**Investigations**
- 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 pancreatitis.
  - bHCG
- X-rays:
  - 10-20% of stones are visible on AXR.
  - CXR can be used to exclude RLL pneumonia.
- 12 lead ECG to exclude MI.
- USS has a sensitivity of 94% and a specificity of 78%.

**Treatment**
- Acute cholecystitis involves mechanical, chemical & infectious factors.
- Increased intraluminal pressure culminates in visceral ischaemia.
- Chemical inflammation with release of lyssolecithin, phospholipase A & prostaglandins results in direct mucosal injury.
- Bacteria are involved in 50-80% of patients.
- Bacterial pathogens involved include:
  - Enterobacteriaceae (70%): E. coli, Klebsiella.
  - Enterococci (15%).
  - Bacteroides (10%).
  - Clostridium (10%).
  - Group D Strep & Staph.

**Complications**
- Acalculus cholecystitis is associated with:
  - Multiple trauma.
  - Extensive burn injury.
  - Prolonged labour.
  - Major surgery.
  - Vasculitis.