Treatment of acute cholecystitis

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Treatment of acute cholecystitis

- All patients with acute cholecystitis should be referred to hospital.
- Acute cholecystitis in the majority of patients subsides spontaneously or responds to conservative medical treatment.
- In approximately 10-20 percent of patients, acute cholecystitis progresses to the local complications of empyema formation with or without gangrene, or perforation with the formation of a pericholecystic abcess.

Conservative treatment followed by cholecystectomy

1 - Nil per mouth (NPO) and intravenous fluid administration.
2 - Administration of analgesics.
3- Administration of antibiotics. A broadspectrum
antibiotic effective against Gram-negative aerobes is
most appropriate (e.g. cefazolin, cefuroxime or gentamicin).
4 - Subsequent management. When the temperature, pulse and
other physical signs show that the inflammation is subsiding,

- Conservative treatment must be abandoned if the pain and tenderness increase;
- depending on the status of the patient, operative intervention and cholecystectomy should be performed
- If the patient has serious comorbid conditions, a percutaneous cholecystostomy can be performed under ultrasound control, which will rapidly relieve symptoms. A subsequent cholecystectomy is usually required.

Non-Operative Treatment for Gallstones

DISSOLUTION TREATMENT

ESWL TREATMENT

DISSOLUTION TREATMENT

- Gallstones may be dissolved with oral ursodeoxycholate and chenodeoxycholate (bile acids).
- Treatment takes many months to complete, and has been shown to dissolve only small uncalcified stones successfully.
- Pre-requisites for the dissolution treatment are:

(1)radiolucent stones,
(2) stones no greater than 20 mm in diameter
(3) a functioning gallbladder.

- Among patients with symptomatic cholelithiasis, only a small percentage (3-25%) would benefit from bile acid therapy and up to 50% of those patients with proven dissolution, can expect a recurrence of gallstones, during the next five years.
- At present, bile acid therapy is indicated only for patients unfit or unwilling to undergo surgery

ESWL TREATMENT

- After the disappointment of dissolution treatment and the successful application of Extracorporeal Shock Wave Lithotripsy (ESWL) in Urology, there was in the mid 1980' an interest in the use of lithotripsy in gallstone management.
- ESWL shatters the stone into small fragments that can either be dissolved more quickly using dissolution treatment with ursodeoxycholate or may pass spontaneously into the intestine.
- Analysis of stone fragments in the feces of patients who had undergone ESWL showed that 3 mm fragments can pass to the intestine without causing symptoms

- **Dissolution and ESWL treatment for gallstone disease are less cost-effective than laparoscopic cholecystectomy and should only be recommended in**

(1)elderly patients with symptomatic cholelithiasis unfit to receive general anesthesia and

(2) patients with symptomatic cholelithiasis actively refusing to undergo operative treatment if they have noncalcified, solitary gallstones, no greater than 2 cm in diameter.

- The ESWL procedure requires administration of propofol anaesthesia i.v., on an outpatient basis.

- Complications are minimal (petechiae, transient hematuria, liver hematoma) but almost half of the patients experience one or more episodes of biliary pain.

  Furthermore, biliary pancreatitis can develop in 1-2% of the patients.

- Urgent or elective cholecystectomy has to be performed in 3-7% of patients.

Operative Treatment for Gallstones

Laparoscopic Cholecystectomy

Open Cholecystectomy

Cholecystostomy

- If conservative treatment fails or in cases with empyema of the G.B. an ulrasound laparoscopically guided cholecystostomy or microcholecystostomy (under u/s guidance) will tide the patient over the critical illness

Routine early operation

- some surgeons advocate urgent operation as a routine measure in cases of acute cholecystitis. Provided that the the surgeon is experienced and excellent operating facilities are available,

- If an early operation is not indicated, one should wait approximately 6 weeks for the inflammation to subside before proceeding to operate.

The benefits of early cholecystectomy include

- **Reduced overall morbidity**
- **Reduced hospital stay**
- **Prevention of further attacks that may occur in patients managed by the delayed cholecystectomy policy**

Unfit patients should be treated conservatively in the first instance with the expectation that acute cholecystitis will resolve in 80% of cases

Management

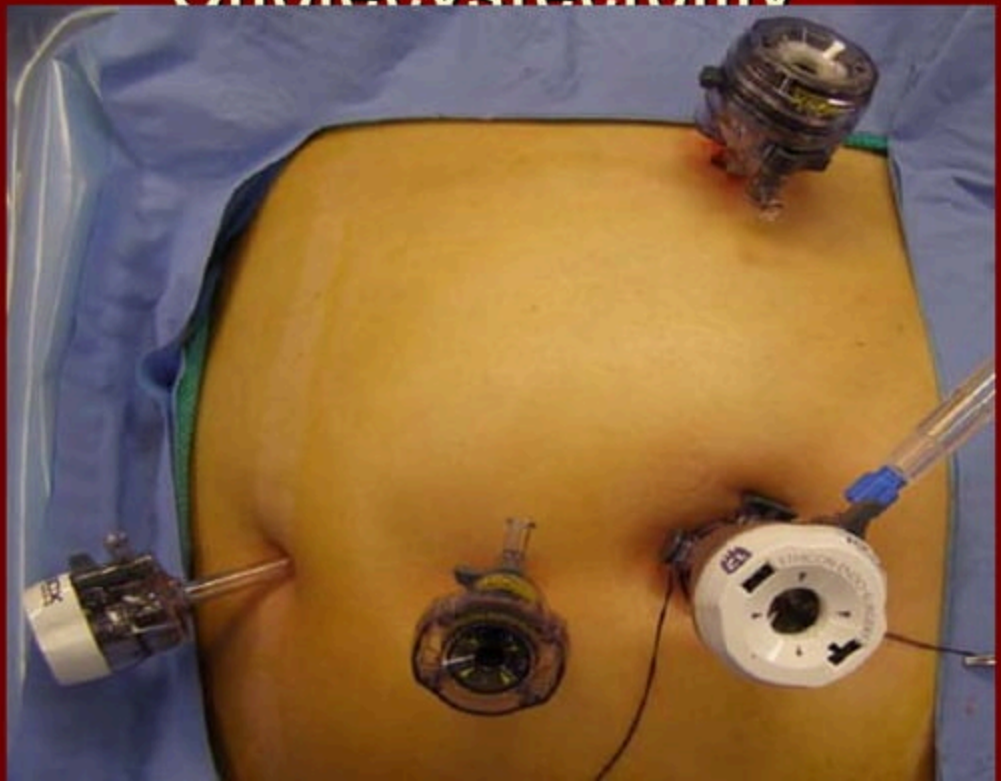
- Laparoscopic cholecystectomy improves the clinicalcourse of selected patients with gallbladder dyskinesia
  but the symptoms persist in more than 50% of the remaining patients

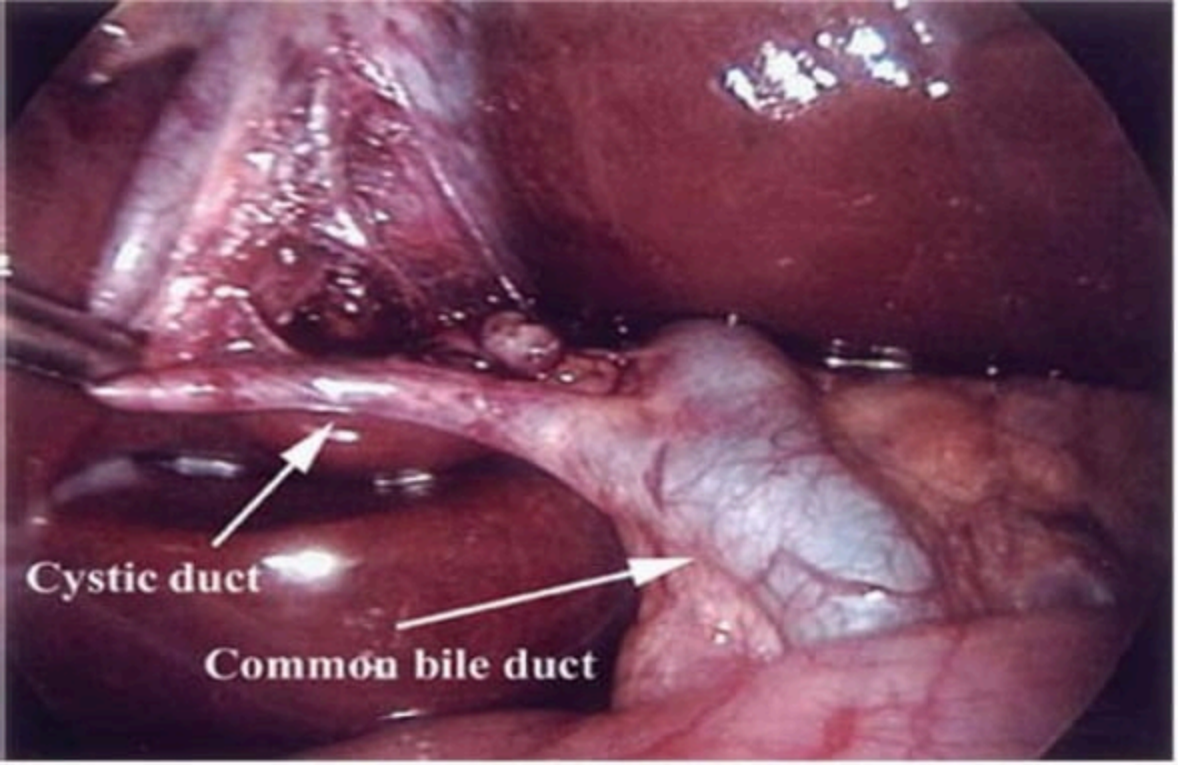
- Detailed selection of patients is based on motility studies of gallbladder (cholecystokinin cholecystoscintigraphy)
  and a microscopic studyof bile collected during ERCP.

Types of cholecystectomy

- There are two ways of performing a cholecystectomy:
- **Laparoscopic (keyhole) cholecystectomy**
- This is the most common way of having your gallbladder removed. The operation is carried out using a tiny camera and surgical instruments that are inserted through small incisions (cuts) in your abdomen
- **Open cholecystectomy**
- The gallbladder is removed through one large cut in your abdomen. This technique is called open surgery. It is a more invasive operation than keyhole surgery, you need to be in hospital for longer and it takes longer to recover. Open surgery is rare in modern practice.

Laparoscopic Cholecystectomy





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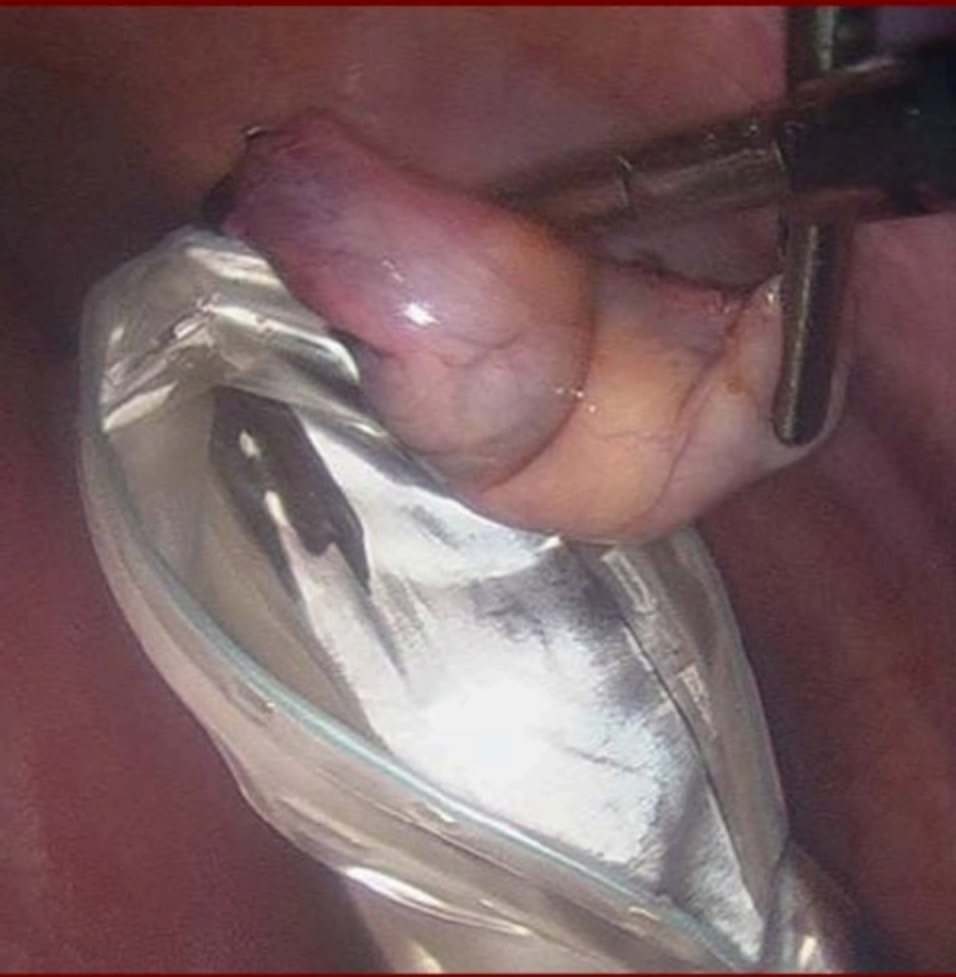
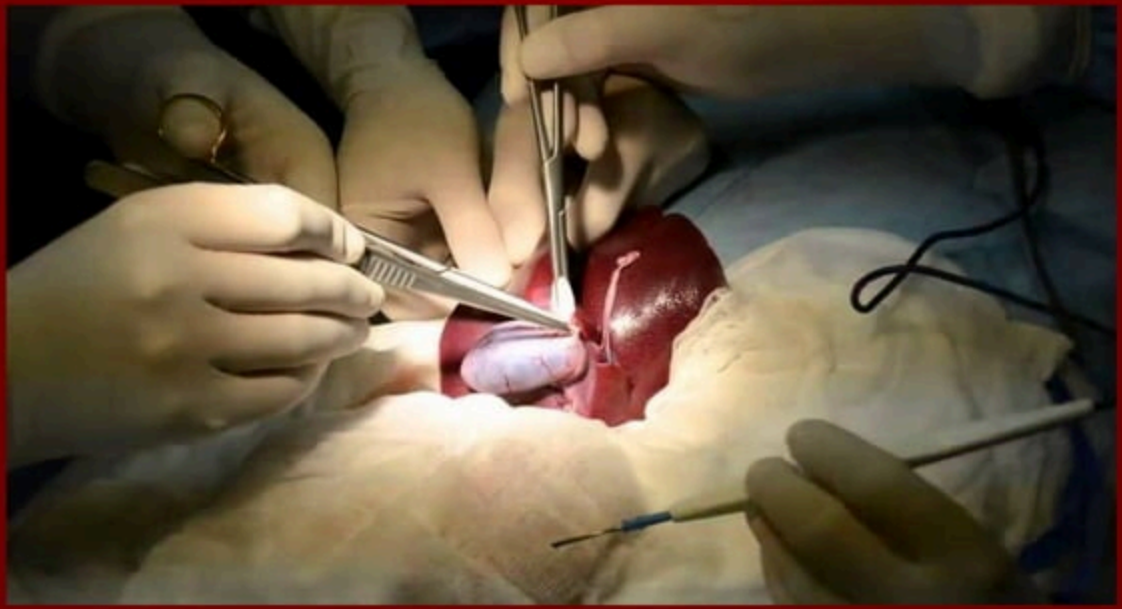


Open cholecystectomy

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