



## Choledocholithiasis 膽管結石(英文)

### What is Choledocholithiasis?

Choledocholithiasis is the presence of a gallstone in the common bile duct. The stone may consist of bile pigments or calcium and cholesterol salts.

### Introduction

Bile formed by the hepatocytes about 800~1000 ml per day is important for digesting food intestine, particularly fat. The gallbladder stores and concentrates bile. Bile passes through bile ducts and releases into the intestines when you eat. Choledocholithiasis may form anywhere when there is bile in the gallbladder, cystic ducts, hepatic ducts, and common bile ducts.

### Etiology

1. Age: increases with age
2. Gender: women
3. Metabolic problem
4. Infectious disease
5. Common bile duct stricture or tumor obstruction
6. Hemolytic anemia
7. Intrahepatic duct stricture
8. Ileal disease, bypass, or resection

### Types of biliary stones

1. Cholesterol stones
2. Pigment stones

### Clinical Manifestations:

1. Epigastric pain or right upper abdominal pain
2. Nausea or vomiting

3. Fever or chills
4. Jaundice
5. dark urine and pale stools

## Diagnosis

1. Abdominal sonography: the initial diagnostic test of choice in the workup of gallstone disease.
2. CT scan: an excellent method to demonstrate CBD stones, especially those with calcium.
3. Endoscopic Retrograde Cholangiopancreatography (ERCP): a technique that combines the use of endoscopy and fluoroscopy to diagnose and treat certain problems of the biliary or pancreatic ductal systems.

## Treatment

### Percutaneous Transhepatic Cholangiography and Drainage (PTCD)

PTCD is a way of examining the bile duct system in the liver. During the exam, a thin needle is inserted through the skin and through the liver into a bile duct. Then dye is injected, and the bile duct system is outlined on X-rays. This procedure is done under local anesthesia by a radiologist.

- Before the procedure
  - do not eat anything 4 hours before the examination
  - Sign a consent form
- After the procedure
  - The patient should stay in bed for at least six hours after the test, lying on the right side to prevent bleeding from the injection site. The patient may resume normal eating habits and gradually resume normal activities. The doctor should be informed right away if pain develops in the right abdomen or shoulder or in case of fever, dizziness, or a change in stool color to black or red.

### Percutaneous Transhepatic Bile Duct Stones Removal (PBSR)

Dilatation of a pre-existing tract created by a previous percutaneous transhepatic biliary drainage (PTCD) procedure is performed, so that the tract can be used to crush and remove the stone inside the **gallbladder** or in the common bile duct with a basket inserted through the tract.

