



## Introduction

1. The biliary tract and the pancreas are important organs inside our body. The bile ducts transport bile synthesized in the liver to the small intestine, and the pancreas secretes digestive enzymes that are collected by the pancreatic ducts. The common bile duct and the pancreatic duct merge with each other to form a common channel before entering into the duodenum.
2. Diseases of the bile duct and the pancreas in general cannot be diagnosed accurately by means of external examination. Using endoscopic retrograde cholangio-pancreatography, doctors can cannulate the bile duct and the pancreatic duct through the opening in the duodenum and perform X-ray imaging and therapy.

## Indication

Patients with:

- biliary obstruction (e.g. due to gallstone or tumour)
- acute cholangitis
- acute or chronic pancreatitis
- post-operative biliary or pancreatic ductal leakage

would need the examination. The endoscopists can also perform therapeutic procedures using various accessory tools during the examination.

## The Operation / Procedure

1. Prior to the examination, depending on individual patient's condition, intravenous sedative may be given to the patient to alleviate any anxiety and discomfort related to the procedure.
2. Local anaesthetic would also be applied to the throat of the patient. A flexible endoscope with a diameter of 1.3 - 1.4cm would then pass through the mouth of the patient into the duodenum to perform examination and therapy.
3. Generally speaking, the procedure may last for 15 to 60 minutes depending on individual cases. In complex cases that require additional therapies, the examination time may be prolonged.
4. Patient's co-operation with the medical staff would help shorten the examination time.
5. For patient safety and security surveillance, all endoscopy rooms are equipped with 24-hour recording CCTV. Video records will be managed according to the principles of Personal Data Privacy Ordinance.

## Before the Operation / Procedure

1. A written consent is required
2. Fasting: Patient should fast for at least 6 hours before the examination. However, emergency procedure may be performed in seriously ill patients.
3. Patients should inform the medical staff of any major medical problems including diabetes, hypertension, valvular heart disease and pregnancy, and continue their medications as instructed.
4. Patients should also provide information regarding their current medications especially the use of antiplatelet and anticoagulation drugs and history of drug allergy.
5. Doctors may arrange patient to receive blood test for clotting factor if necessary



### After the Operation / Procedure

1. The patient should resume diet only after the effect of anaesthetic or sedative has worn off.
2. If naso-biliary drainage (a tube is placed from the nose to the bile duct) is needed, the patient should carefully maintain the position of the tube as dislodgement of the tube from the bile duct would result in failure of treatment.
3. If the patient has received intravenous sedation, the consciousness and thinking ability would be impaired. Therefore, patient should avoid operating heavy machinery or driving for the rest of the day to prevent an accident. Also he/she should avoid signing legal document.
4. The patient could contact the attending physicians for any discomfort after the procedure, or any question about the examination result and drug treatment.
5. However, if patient has the following conditions such as passage of large amount of blood, severe abdominal pain, or fever, patient should seek medical advice immediately.

### Risk and Complication

1. Minor discomfort including nausea and feeling of abdominal distension is common.
2. The local anaesthetic causes numbness in the throat for around an hour, resulting in difficulty in swallowing.
3. ERCP is a technically demanding endoscopic examination method. Depending on patient's condition and the nature of the diseases, the failure rate could be up to 10%. If the procedure is failed, patient may need to receive alternative interventional treatment.
4. ERCP could cause serious complications, which include perforation, bleeding, cardiopulmonary events, acute cholangitis, pancreatitis, etc. The complication rate in general is less than 10%. Should major complications occur, emergency surgical treatment may be needed. Death may occur as a result of the serious complications.
5. The complication rate varies with patient's conditions and the complexity of the diagnostic and therapeutic methods performed. Patient should consult the attending physicians for the detail of the endoscopic procedures.
6. The examination procedure will be performed under X-ray monitoring and luminal contrast agent will be used for delineating the bile ducts and the pancreatic duct. Although the risk of allergic reaction related to the use of luminal contrast agent is rare, severe reaction such as shock may occur.
7. Female patient should understand that there is a potential risk of radiation induced malformation of the fetus if she is pregnant at the time of the ERCP examination. She will be fully responsible for all the consequences if she fails to notify the medical staff of any possibility that she would be pregnant at the time of the examination.

### Disclaimer

This leaflet only provides general information pertaining to this operation / procedure. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

### Reference

Smart Patient Website of Hospital Authority, Endoscopic Retrograde Cholangiopancreatography (5/2019)