What is an Endoscopic Retrograde Cholangiopancreatographic (ERCP)?

This is a procedure that uses a flexible tube just larger than the diameter of a pencil that has a camera at the end (endoscope). It is passed through your mouth into the gullet, the stomach and the initial part of the small intestine where your bile and pancreatic ducts are open. Then a dye is injected to visualize the biliary and pancreatic system using X-ray images.
Why do you need an ERCP?

This procedure is performed to identify diseases of your biliary or pancreatic ducts (e.g. stone, abnormal narrowing, growth or cancer)

The common reasons for the procedure include:

- Development of yellow skin or eyes (jaundice), light stool dark urine and itching.
- Recurrent abdominal pains due to pancreatic swelling caused by blockage of pancreatic duct.
- A scan (e.g. ultrasound scan, CT scan) showing a blockage of the bile or pancreatic ducts.
- Abnormal liver blood tests suggestive of bile duct blockage.
- Bile duct injury due to gallbladder surgery or trauma to abdomen.

In addition to diagnose the cause, certain procedures can be performed to release the blockage. E.g.

- Removal of stones
- Increase the size of the common opening of bile and pancreatic duct to intestine by putting a small cut (sphincterotomy)
- Dilation of the narrowed ducts.
- Placement of a plastic or metal tube (stent) to relieve the block.
- Obtaining samples including cells and fluid for further assessment.
- Obtaining tissue samples using a very thin flexible tube with a camera (spyglass) that is passed through the bile duct.
How ERCP is performed?

Procedure is performed under sedation to lower your conscious level minimizing the discomfort. Therefore you may not remember the procedure clearly.

A drug which causes sedation will be injected to you through a needle which is placed in the back of your hand.

You will be given a throat spray to numb the throat so that discomfort and retching will be minimal.

You will be kept lying on your left side (left lateral position). Your mouth will be kept open using a mouth guard by a nurse throughout the procedure. Endoscope will be entered into your food passage through the mouth, it will pass through the gullet, stomach and then to the first part of the small intestine. Then a smaller tube is passed into the opening of the ducts and a dye is injected in to the bile and pancreatic duct and X-ray will be taken to identify blocks as described above.

Depending on the identified problems, the endoscopist will perform certain treatment or further diagnostic procedures (discussed above).

What are the complications of ERCP?

This is a commonly performed procedure. However, as it is invasive, it carries an element of risk.
In order to make an informed decision, you need to be aware of the possible complications which are either related to surgery or to anaesthesia.

- Pancreatitis (Inflammation of the pancreas): requires extended hospital stay and treatments. Very rarely, this could be fatal (<1:1000).
- Perforation of the first part of the small intestine: This occurs very rarely (1:750) and may require a surgery.
- Cholangitis (Inflammation of the bile duct): requires extended hospital stay and treatment with antibiotics.
- Bleeding: rarely require blood transfusion.
- Cardiac and respiratory complications are rare and generally occur in patients with pre-existing medical problems.
- Renal failure – Particularly for jaundiced patients.

**Are there any alternatives for ERCP?**

There are other imaging investigations that can be used to identify bile and pancreatic duct pathologies. E.g. CT (computerized tomographic) scan, MRCP (Magnetic resonance cholangiopancreaticogram), Endoscopic ultrasound scan.

However, there are limitations of them when compared to ERCP including the inability to perform treatment procedures.
Preparation for the procedure

This may be carried out as a routine procedure or as an urgent procedure for inward patients who require urgent relief of the blockage of bile ducts.

You will be asked for details of your medical history, allergies and will be carried out relevant examination and blood investigations prior to the procedure at the clinic or in the ward. Make sure that you bring the records of your other clinic follow ups, medications and previous surgical notes, if any.

Some of your routine medications may affect the procedure and anaesthesia. Therefore, you will be advised about the alteration of your routine medications. Specially, blood thinning drugs (Clopidogrel) should be withheld 7 days before the procedure for routine cases.

Once the procedure assessment is satisfactory, for routine procedures, a date will be booked. You will be asked to provide an informed written consent.

You will be admitted one day prior to hospital for further preparation and assessment. You will see an anaesthetist before your procedure as this requires anaesthesia. You are supposed to bring white colour, loose-fitting and comfortable clothes for the procedure. Leave your valuables with your guardian.

You will be asked to stay fasting for solids for 6 hours and clear fluid for 2 hours prior to procedure.
The day of your ERCP

You need to be dressed up with white color cloths and will be taken to the endoscopy unit. After completing your ERCP, you will be kept for ½-1 hour for recovery. Then you will be transferred back to the ward after confirming your vital parameters are satisfactory and you are adequately conscious if procedure is performed under general anaesthesia.

The report containing the results of your procedure will be attached to your bed head ticket.

Your recovery

You will be monitored closely for post-procedure complications. You will be provided pain medications accordingly to keep you comfortable and pain free.

Most of the times you can take a light diet after you are fully awake. However, depending on the treatment procedure performed you may be asked to stay fasting further till informed.

If you have undergone a routine procedure, you will be kept in the ward for one night to monitor for complications. You will be discharged on the following day unless you develop above mentioned complications. You will be informed about the findings of the procedure and follow up plan will be given according to your condition.
Resuming normal activity and returning to work

It is safe to attend daily activities at home depending on your comfort. You should be able to return to office work by next day.

If you develop severe abdominal pain, fever, black or red stools, yellow eyes, tea coloured urine or persistent vomiting you should take medical advice as early as possible.

Contacts

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