ERCP

A guide for patients

Name

Exam Date and Time

Center for Digestive Diseases
The University of Iowa
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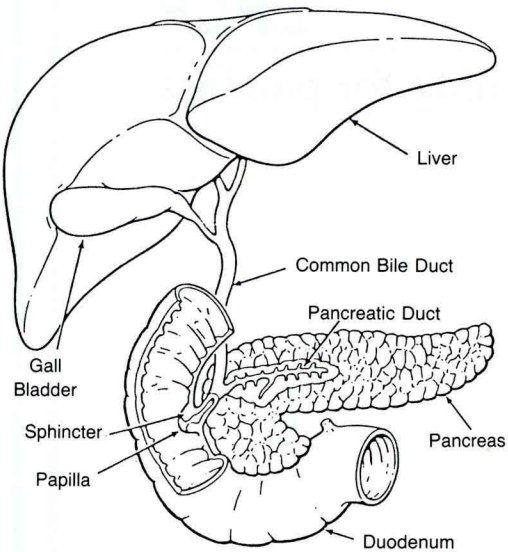
Iowa City, Iowa 52242

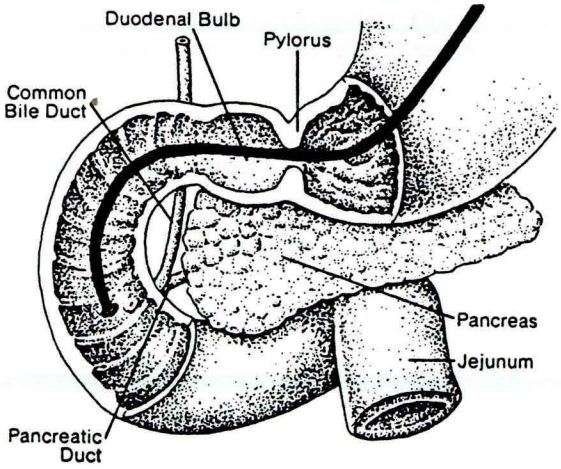
Introduction

Your doctor has recommended a procedure called an ERCP (endoscopic retrograde cholangio-pancreatography) for further evaluation and/or treatment of your condition. ERCP is a valuable examination for the diagnosis of many diseases of the pancreas, bile ducts, liver, and gallbladder. An abnormality suspected by your symptoms, blood tests, or X-rays can be confirmed and studied in detail. The following information is provided to help you understand the procedure and required preparation.



ERCP

A long, flexible tube called an endoscope, about as big around as the index finger, is slowly passed through the mouth, esophagus, and stomach into the first portion of the small intestine (duodenum). This allows the physician to directly view and identify the opening (papilla) from the bile duct and pancreatic duct. A small plastic tube called a cannula is passed into the bile duct and/or pancreatic duct. Contrast material (dye) is then injected into the ducts so they can be visualized by X-rays.



Sphincterotomy

If the ERCP indicates that you may benefit from a sphincterotomy, a bow-shaped wire called a sphincterotome is passed through the endoscope and a small cut is made to enlarge the opening of the bile duct. This usually causes no discomfort but you will hear a buzzing noise from equipment used during the procedure.

Stone Removal

If the sphincterotomy is being done to remove gallstones from the common bile duct, the physician will pass a small plastic tube with an attached balloon through the endoscope. The tube will be directed above the stone(s) and the balloon inflated. The balloon will then be withdrawn, pulling the stones out through the duct. There are occasions when the stones do not pass at the time of the procedure due to swelling around the enlarged opening. Once the swelling goes down, the stones have a greater chance of passing into the small intestine.

Stent Placement

After the ERCP your physician may decide that a small plastic tube called a stent should be placed in your common bile duct so that the bile can flow freely from your liver or gallbladder to the small intestine. This can be done with or without a sphincterotomy. The stent is inserted through the endoscope. If it is permanent, it will remain in the duct for several months. If it is temporary, a long thin tube will exit your nose and be connected to a bag for drainage. Medications may be infused through the drainage tube to dissolve large gallstones. This tube will remain in place up to several weeks.

Risks

Your written consent will be required to perform the procedure. You are encouraged to ask any questions you may have. ERCP/sphincterotomy/stent placements are safe, low-risk procedures when performed by specially trained physicians. The majority of patients who have this procedure have no complications whatsoever. However, as in any procedure, there are risks; in ERCP/sphincterotomy/stent placement these risks include

1. Abdominal pain due to bloating of the stomach and the intestines. This is usually mild to moderate discomfort and can be relieved by pain medication or antinausea medication.
2. Inflammation of the pancreas (pancreatitis) occasionally results from filling the pancreatic ducts with contrast material. Inflammation of the common bile duct (cholangitis) or a generalized infection, sometimes called blood poisoning (septicemia), can occur during or after the procedure.
3. In rare instances, the examining or cutting instruments can puncture the wall of the digestive tract. This might require emergency surgery to repair the tear.

4. Bleeding can occur, particularly associated with sphincterotomy. This occasionally requires blood transfusions and on rare occasions may result in the need for emergency surgery. Blood tests are performed prior to the procedure to note any bleeding tendency.
5. Medications given before and during the procedure may, in rare circumstances, cause mild to serious reactions. These may include changes in heart rate, blood pressure, or respiration. Be sure to tell your doctor and nurse of any medical problems you have now or have had in the past.
6. Localized irritation of the vein may occur at the site of medication injection. A tender lump occasionally develops that may remain for several weeks to several months. Should this occur, application of warm moist compresses may help to relieve the symptoms. Persistent or increasing redness and/or tenderness should be evaluated by your physician.

All of the complications mentioned are uncommon. Every effort is made to minimize these, but they cannot be completely eliminated. Proper equipment and trained staff are close at hand to properly manage complications that might arise. Should you have any questions about these risks or any other aspect of the examination, please discuss them further with your physician.

Preparation for the Procedure

You may be given antibiotics before the procedure if you have

- an artificial heart valve
- a total hip or knee replacement
- a history of blockage of the bile duct or pancreatic duct

Please inform your doctor if

- you take antibiotics before dental visits;
- you are on any type of blood thinners, aspirin, or aspirin-containing products;
- you have any bleeding tendencies;
- you are allergic to anything, especially *iodine dyes;*
- there is any chance that you are pregnant, since X-rays will be taken during the procedure;
- you have had any barium X-rays within the past month, since barium may interfere with this test.

You must make arrangements ahead of time for another person to drive you home. The medications you will receive make it unsafe for you to drive a car for at least 12 hours after the procedure. Even though you may not feel tired, your judgment and reflexes may be slow.

Diet Instructions

For the best possible examination, the stomach must be completely empty. It is important that you have nothing to eat or drink, including water, from midnight the evening before the examination or for at least six hours before your procedure. If the exam is scheduled in the

☐ morning, take no food or fluids after midnight.
☐ afternoon, you may have a clear liquid breakfast; then take no additional food or fluids after 7:00 a.m.

A clear liquid diet includes gelatin, broth, tea or coffee with sugar, clear juice without pulp, carbonated beverages, and hard candies (lemon drop type). *Nothing else is permitted on a clear liquid diet.*

Medication Instructions

- *You may take necessary prescription medications* with a small amount of water no later than 7:00 a.m. the morning of your procedure. These would generally include medication for treatment of heart, blood pressure, or seizure disorders; however, this should be discussed with your doctor or nurse.

- Unless you are taking aspirin at the direction of a physician, do not take any aspirin or aspirin-containing products of any type for five to seven days prior to the procedure.
- If you are taking any of the following medications, please consult your doctor:
  —aspirin or any products containing aspirin
  —blood-thinner medications such as heparin or Coumadin
  —any arthritis medication
  —insulin or hypoglycemic pills

Day of the Procedure

Clinic patients should report to the outpatient clinic the day of the procedure. You will be directed to the Diagnostic and Therapeutic Unit on the fourth floor of Colloton Pavilion where the nurses will prepare you for the examination. Please note that we cannot be responsible for valuables such as jewelry and money brought to the unit. You are advised to leave such articles at home.

Upon arrival in the Diagnostic and Therapeutic Unit you will be given a hospital gown to wear. A nurse will review the procedure with you, take a brief health history and answer questions. Your blood pressure, pulse, and respirations will be recorded. One or two IVs will be started (a needle inserted into a vein so that fluids and sedation can be given). You will then be taken on a cart to the X-ray department for the ERCP.

An anesthetic gargle or spray will be used to numb the back of your throat and ease the passage of the endoscope into the upper digestive tract. Medications will be given through the IV to reduce secretions and to help you relax. When you feel drowsy, the endoscope will be inserted. This is ordinarily accomplished with ease. The endoscope does not interfere with breathing.

During the procedure, the doctor will inflate your digestive tract with air to obtain a better view. This may cause some discomfort and make you feel like belching. Excess secretions will be suctioned from

your mouth as necessary to decrease the need to swallow. Samples of tissue cells from the bowel lining may be removed (biopsy/cytology) for microscopic study.

The endoscope is advanced into the duodenum and a cannula is inserted into the bile duct or pancreatic duct. You may feel some abdominal discomfort as X-ray contrast material (dye) is injected into the bile duct. You may be asked to lie on your stomach, or your head may be raised or lowered while X-rays are taken. If your condition requires further treatment, the ERCP may be followed by a sphincterotomy, stone removal, and/or stent placement.

After the Procedure

When the procedure is completed, you will remain in the X-ray department until the films are developed to make certain that additional X-rays are not needed. The endoscopy nurse will stay with you and will transport you by cart to the recovery room in the Diagnostic and Therapeutic Unit or to your inpatient unit to rest for one to two hours until the effects of the medications have worn off. During this time, the nursing staff will periodically check your blood pressure and pulse. You may feel bloated because of the air and contrast dye that were introduced into the intestinal tract during the examination. If you had a spincterotomy or stent placement, you will be admitted to the hospital.

When you are more fully awake, your doctor will discuss the findings of the procedure with you. Because of the possible aftereffects of the medications given during the examination, we would advise that for at least 12 hours after the procedure you

- not return to work
- not drive a car or other motor vehicles
- not operate any machinery (including kitchen equipment)
- not drink alcohol

You will be given written instructions explaining postprocedure care and any special instructions your doctor recommends.

Special Instructions

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