# Chemoembolization

*Chemoembolization* is a procedure that combines two things: *chemotherapy* and *embolization*. It delivers drugs that kill cancer cells (*chemotherapy*) through a blood vessel directly to a tumor. At the same time, another substance is put into the blood vessel to create a blockage (*embolization*). This keeps blood from "feeding" the tumor and traps the chemotherapy in place.

Chemoembolization is most often used to treat liver cancer. It is well-suited to the liver because the liver has two large blood vessels that supply it with blood. One can be used to deliver chemotherapy and then blocked. The other can still get blood to the liver.

The procedure can be used to treat tumors in other parts of the body, too. For most people, chemoembolization helps slow the growth of the tumor or stop it from growing. If the tumor continues to grow or returns after treatment, the procedure can be done again.

## BEFORE THE PROCEDURE:

- Your healthcare provider may want you to have blood tests. They can help tell how well your kidneys and liver are working. They also can show how well your blood clots.
- Two weeks before your procedure, stop using aspirin and non-steroidal anti-inflammatory drugs (NSAIDs) for pain relief. This includes prescription drugs and over-the-counter drugs such as ibuprofen and naproxen. Also stop taking vitamin E.
- If you take blood-thinners, ask your healthcare provider when you should stop taking them.
- Do not eat or drink for about 8 hours before your procedure.
- You might be asked to shower or wash with a special antibacterial soap before the procedure.
- Arrive at least an hour before the procedure, or whenever your healthcare provider recommends. This will give you time to check in and fill out any needed paperwork.
- If this will be an outpatient procedure, you will be able to go home the same day. Most people stay overnight in the hospital after the procedure. Ask your healthcare provider what to expect. Either way, make arrangements in advance for someone to drive you home.

## LET YOUR CAREGIVER KNOW ABOUT THE FOLLOWING:

- Any allergies.
- All medications you are taking, including:
  - Herbs, eyedrops, over-the-counter medications and creams.
  - Blood thinners (*anticoagulants*), aspirin or other drugs that could affect blood clotting.
- Use of steroids (by mouth or as creams).
- Previous problems with anesthetics, including local anesthetics.
- Possibility of pregnancy, if this applies.
- Any history of blood clots.
- Any history of bleeding or other blood problems.
- Previous surgery.
- Smoking history.
- Other health problems.

## THE PROCEDURE

Chemoembolization usually takes about 90 minutes. The procedure may vary, depending on which organ or area of the body is being treated. If the liver is the target, here is what you can expect:

- During the preparation:
  - You will change into a hospital gown.
  - You will be given an IV. A needle will be inserted in your arm. Medication will be able to flow directly

into your body through this needle.
  - You will be asleep (*under general anesthesia*) or just the location of the surgical site will be numbed (*regional anesthesia*).
- During the procedure:
  - Your healthcare provider will puncture the femoral artery in the groin (usually the right).
  - A thin, flexible tube (*catheter*) will be inserted and guided gently to the blood vessel that feeds the liver.
  - A dye will be injected through the IV. Then, X-rays will be taken. This helps everyone see the exact location of the blood vessels that lead into your liver.
  - The chemotherapy drugs and the substance used for embolization will be injected into the blood vessel.
  - More X-rays will be taken to make sure the procedure has closed the blood vessel.
  - The catheter will be removed. Pressure will be put on the incision to stop any bleeding, and a dressing will be applied.

## AFTER THE PROCEDURE:

- You will stay in a recovery area until the anesthesia has worn off. Your blood pressure and pulse will be checked.
- Pain and nausea are common right after chemoembolization. You can be given medicine to control this. Be sure to tell your caregivers how you are feeling.
- You will need to remain lying down for 6 to 8 hours. This often means an overnight stay in the hospital. Sometimes people stay longer.

## RISKS AND COMPLICATIONS

- Infection or numbness near the incision.
- Swelling or bruising.
- Slow healing.
- Blood clots.
- Damage to the blood vessel.
- Damage to healthy cells close to the chemoembolization site.
- Allergic reaction to the contrast dye used in the procedure.
- Side effects from the chemotherapy. These could include nausea, hair loss and decrease in red blood cells (*anemia*).
- Damage to the liver. This is rare.

## HOME CARE INSTRUCTIONS

- Take any medication that your healthcare provider prescribed for pain, nausea or fever. Follow the directions carefully. Take all of the medication.
- Ask your provider whether you can take over-the-counter medicines for pain or fever. Do not take aspirin unless your healthcare team says that you should. Aspirin increases the chances of bleeding.
- If you were given a small breathing device (*incentive spirometer*), be sure to use it. It helps keep your lungs clear while you are recovering. You will not need this after your activity level is back to normal.
- You might have a slight fever for about a week after the procedure. If it gets worse, let your caregiver know.
- You might feel tired and not hungry. This is normal. These feelings should go away in about a week.
- Do not get the puncture site area wet for the first few days after surgery (or until your caregiver says it is OK).
- You should be able to resume your normal routine in about a week.
- During the first month after your procedure, you will probably need to go back to your caregiver for some simple tests. Scans and blood tests will help tell if the procedure worked.

## SEEK MEDICAL CARE IF:

- Blood or fluid leak from the wound, or it becomes red or swollen.
- You become nauseous or throw up for more than two days after the surgery.

- Your pain or fever becomes worse than it was when you left the hospital.
- You develop a fever of more than 100.5° F (38.1° C).

**SEEK IMMEDIATE MEDICAL CARE IF:**

- You develop a fever of 102.0° F (38.9° C) or higher.

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