Transcatheter Arterial Chemoembolization (TACE) with Drug Eluting Beads

What is TACE with Drug Eluting Beads?

Transcatheter Arterial Chemoembolization (TACE) is used for the palliative treatment of Hepatocellular Carcinoma (HCC). The drug eluting beads (microspheres) are biocompatible (won’t cause harm to your tissues), non-resorbent (won’t be broken down by your body) and soaked in a chemotherapy agent (cancer killing drugs such as Doxorubicin or Irinotecan). Guided by x-ray examination of blood vessels (angiography), the beads are placed directly into the tumor, cutting off the blood supply, as well as delivering an extended dose of cancer killing drugs into the tumor itself. TACE has a number of benefits:

- The blood supply to liver tumors usually comes from the hepatic artery, so cutting off the blood to the tumors using the beads postpones growth of the tumors. Embolization occurs when blood supply to the tumor is cut off.
- The beads also keep the chemotherapy drug in the tumor by blocking the flow to other areas of the body. This allows for a higher dose of the drug to be used, because less of the drug is able to circulate to the healthy cells in the body.

How to Prepare for Your TACE Procedure

- Once you are scheduled for the Hepatic Chemoembolization procedure, please call the Pre-registration Department of California Pacific Medical Center to speak with a person in Admitting as soon as your treatment is scheduled. The Admitting staff works to help you complete your registration forms and insurance information by phone.
- **You may not eat or drink anything within 6 hours of your scheduled treatment, unless otherwise directed by your doctor. However, you may continue to take your routine drugs, such as heart and blood pressure drugs, with only a sip of water.**

If the doctor does not feel it is necessary for you to stay in the hospital overnight, you must have a ride home with a responsible adult. You may not drive yourself or take a cab home alone.

**Special Note:** Anticoagulants (blood-thinning drugs) must be stopped at least 3-4 days before your scheduled treatment. Examples are Vitamin E and Coumadin (Warfarin). In addition, diabetes drugs such a Glucophage (Metformin) or Glucovance (Glyburide and Metformin) must be held for 48 hours AFTER the procedure. Please be sure to contact your doctor before your scheduled TACE treatment if you take any of these drugs.
Before Your Procedure

• On the day of your scheduled treatment, come to the Ambulatory Care Unit (ACU) at least 2 hours before your scheduled procedure. 
  **Note:** Non-English speaking patients are encouraged to come with an English speaking family member or translator. A certified, medical translator will be available at the hospital for translation of consents, risks and benefits.
• Once you are admitted into the ACU, you will change into a hospital gown. Any valuables will be taken to the safe by Security at your request. The rest of your belongings will be kept in the Ambulatory Care Unit until you are discharged or sent to your hospital room.
• Bring a list of any drugs you are taking and your insurance information. You may have blood tests taken if needed.
• An IV (intravenous line) will be placed in your arm in the Ambulatory Care Unit before your procedure. The IV is needed to give you drugs during your procedure to help you relax and make sure you are comfortable.
• The ACU Nurse (RN) will then administer drugs through your IV before the procedure. You will receive an antibiotic (to prevent infection), an anti-nausea drug, and a low dose steroid (an anti-inflammatory) through your IV. Once you are ready, you will be sent to the Interventional Radiology department on a gurney to have your procedure.
• Once you arrive in the Interventional Radiology department, the Interventional Radiologist (IR doctor) who will be performing the procedure will speak with you, providing an informed consent. He will discuss all of the risks and benefits as well as describe how the procedure itself is done. This is a good time for you to ask questions and share any concerns you may have. The RN will then have you sign a consent form for the Transcatheter Arterial Hepatic Chemoembolization with Drug Eluting Beads. You will then be brought into the angiography suite to begin the procedure.

During Your Procedure

• You will be placed on our X-Ray table and the RN will place monitors on you. You will have an EKG to monitor your heart, a blood pressure cuff, and a special device on your finger that measures the oxygen level in your blood (pulse oximeter). Your IV will be connected to a saline drip which will help hydrate you during and after the procedure. The RN will also check and mark the pulses in your feet. Please be sure to let the staff know if you have had a previous allergic reaction to the x-ray contrast.
• Because the doctor will be accessing the main artery in your thigh (called the common femoral artery), it is important that this area remain sterile to prevent any bacteria from going into the puncture site. This is done by shaving the area, if needed, and applying an antiseptic solution to the area. A drape will then be placed over you. It is very important to hold still for the duration of the procedure.
• The doctor will perform the procedure by puncturing the right common femoral artery and passing a small, flexible tube (catheter) through the abdominal aorta, then the celiac artery, and into the hepatic (liver) artery. The radiologist will
perform an arteriogram; using contrast dye and X-Ray guidance to find the branches of the hepatic artery that are supplying blood to the tumor. Once this vessel is found, he will then thread smaller tubes (catheters) into the branches of the artery that are directly supplying blood to the tumor. Once inside the branch, he will administer the chemotherapy (the drug eluting beads) directly into the tumor.

- The IR doctor will take several angiograms to make sure that the blood flowing to the tumor has been stopped by the beads (embolized). Once he has achieved embolization of the tumor then the procedure is complete.
- At the conclusion, a picture will be taken of the common femoral artery and an arterial closure device will be used to prevent bleeding from the puncture site.
- The IR doctor will talk to you right after your procedure to give you any updates or answer any questions. The final results of your procedure will be given to you by your primary doctor.

### After Your Procedure

Once the procedure is finished, the IR doctor removes the tube (catheter) and applies pressure to the entry site for 5 to 20 minutes to prevent bleeding. You will be taken on a gurney either to the ACU or be admitted to the hospital. **There your nurse will:**

- **Ask you to lie still without bending the leg that the tube (catheter) was placed in and keep your head flat for 2 – 6 hours after the procedure. It is OK to bend your other leg for comfort.** This is to prevent any bleeding from the femoral (groin) artery where the tube was inserted.
- Monitor your pulse, blood pressure, oxygen levels and check your puncture site for any bleeding or bruising. You may eat if you want, but remember to keep your head flat.
- Continue to hydrate you with IV fluids for a couple of hours after the procedure.

*You may also experience side effects of the procedure including, but not limited to:*

- Pain/bruising around the puncture site
- Pain in your right abdomen/right shoulder
- Nausea/vomiting
- Fatigue
- Loss of appetite

If you are being admitted overnight, the doctor will order drugs for these side effects. Before you go home, you will receive specific instructions about your care at home from your doctor or the nursing staff. **Do not forget your prescriptions for nausea, pain, and antibiotics from your hepatologist (liver doctor) before you leave the hospital.**

**YOU MAY NOT DRIVE OR TAKE A CAB HOME ALONE.** You may take a cab ONLY if you are accompanied by a responsible adult.
What to Expect at Home

- Once you are discharged from the hospital, you may resume your daily activities as tolerated. There will be a dressing over the puncture site in your groin. You may remove that dressing 24 hours after your procedure. You may shower, but do not soak the puncture site for one week to allow it to heal.

- It is extremely important to follow up with the doctor who ordered the procedure after you are discharged.

- As with any invasive procedure, there are risks, including, but not limited to: severe post embolization syndrome (fever, pain, extreme fatigue, nausea/vomiting), hepatic injury and liver abscess. If you are experiencing any of the listed side effects as well as oozing or bleeding at the puncture site please call your doctor immediately.

- Be sure to take your drugs as prescribed by your hepatologist (liver doctor).

- The Interventional Radiology staff will phone you a few days after your procedure to check in on you.

More Ways to Learn

Visit the Society of Interventional Radiology web site at www.sirweb.org. The Society has an area for patient information on their site.