

## Chemoembolization of the Liver

### INTRODUCTION

Chemoembolisation is a minimally invasive treatment for liver cancer. Chemoembolisation can be used when there is too much tumour to treat with radiofrequency ablation (RFA), or in combination with RFA or other treatments.

Chemoembolisation delivers a high dose of cancer killing drug (chemotherapy) directly to the organ while depriving the tumour of its blood supply by blocking, or embolising, the arteries feeding the tumour.

Chemoembolization is not recommended in cases where severe liver or kidney dysfunction, abnormal blood clotting or a blockage of the bile ducts. In some cases—despite liver dysfunction—chemoembolization may be done in small amounts and in several procedures to try and minimize the effect on the normal liver.

Chemoembolization is a treatment, not a cure. Approximately 70 percent of the patients will see improvement in the liver and, depending on the type of liver cancer, it may improve survival rates.

### PROCEDURE

On the day of the procedure, you will be admitted to the hospital and an intravenous line will be placed in your arm to give you fluids and medications. A Foley catheter may be inserted into your bladder. An arteriogram will then be performed. This involves the placement of a plastic (catheter) into an artery in your groin. Some numbing medicine will be injected in the skin over the artery that will be used before the catheter is inserted.

Intravenous medications may also be given to you to make you more comfortable and relaxed. This is known as conscious sedation. Once the catheter has been placed into the artery, it will be advanced through the blood vessels.

During this time, x-ray contrast material (x-ray dye) will be injected through the catheter and x-ray pictures taken. You may be asked to hold your breath for several seconds as these pictures are taken. During the injection of x-ray contrast material, you may experience a warm feeling or a strange taste in your mouth. Both of these sensations are temporary and will go away soon. A series of x-rays pictures will then be taken of the arteries and veins to your liver. Once the catheter is placed into one artery supplying the tumor, the chemotherapy and embolization agents will be injected until there is no more blood flow through that artery. At the completion of the procedure, the catheter will be removed and pressure will be applied to the insertion site until the bleeding has stopped. To help prevent bleeding, it will be very important for you to lie flat in bed without moving your arm or leg for up to six hours.

If needed, medications to control any pain, fever, nausea, or vomiting you may be experiencing after the procedure are available to you. The Foley catheter will be removed the next day. Most patients go home the day after the procedure. You may be discharged from the hospital as soon as you no longer require injections to control your pain or nausea and you feel well enough to eat and drink.

Chemoembolization causes some predictable symptoms that affect up to 30% of patients. These include varying degrees of pain, nausea, and low grade fever (daily fevers to 38.3-39.4°C). The chemotherapy may cause a drop in your blood cell counts for two or three weeks after each treatment. Depending on the tumor, you may require more than one treatment.

**RISKS**

Risks associated with the procedure include pain or discomfort at the catheter insertion site, bleeding at the site, injury to a blood vessel, infection which may result in an infection of the blood stream, the development of a blood clot (embolization) in other areas of your body, stroke, the development of a liver abscess, and acute liver failure. Risks associated with the x-ray contrast material include an allergic reaction and reduced kidney function. The medications used for the conscious sedation are associated with the risks of aspiration (inhaling food or liquid into your lungs) or respiratory depression. In addition to these potential risks associated with the procedure, the x-ray contrast material, and the conscious sedation medications, there may be other unpredictable risks including death.

**ALTERNATIVES**

There may be other methods to treat your tumor, including other methods of chemotherapy. If you are unsure about undergoing chemoembolization of your liver, please discuss these other alternatives with your physician.