What is radioembolization?

Y-90 radioembolization is a nonsurgical treatment for liver cancer. Tiny radioactive beads are put into the blood vessel that feeds the tumor to deliver a high dose of radiation directly to the cancer cells. Radioembolization does not cure liver cancer, but it can slow down the growth of the cancer and help lessen symptoms.

The beads are no longer radioactive after 30 days. The beads stay in your liver without any harmful effects.

How is the treatment done?

A small tube (catheter) is put through an artery in your groin to reach your liver. This is called an arteriogram. We will give you medicine so you do not feel any pain during the procedure.

You will have 2 or 3 arteriograms, depending on the number of radiation treatments you need. These procedures are all done on an outpatient basis, which means you are not admitted to the hospital and will go home the day of treatment.

The first arteriogram is done to:

- map out your anatomy
- place metal coils in blood vessels leading to the stomach and small bowel to keep the radioactive beads from moving to those areas
- check the amount of blood that flows from the liver to the lungs.

During the first arteriogram, we inject “test beads.” We do a scan of your body to see how many of the beads moved toward the lungs. We do this test so we can keep you safe during the arteriogram in which we use the radioactive beads.

After the procedure the catheter is removed and we will close the insertion site with either glue or a closure device. If we use a closure device, you will need to lay flat for 2 hours to keep the artery from bleeding. If we use glue, you will need to lay flat for 6 hours.

Liver anatomy.
We will give you prescriptions for Prilosec and Medrol. You will need to take the Prilosec 3 to 4 days before the radioembolization treatment to help prevent stomach ulcers by reducing stomach acid. Medrol is a steroid and is taken after your Y-90 radioembolization treatment, if needed, to help with pain, nausea, vomiting, a poor appetite, or feeling very tired or worn out. You will not need the Medrol if you do not have these symptoms.

The second arteriogram is the first Y-90 treatment. This appointment is usually 1 to 2 weeks after the mapping arteriogram. It is the same procedure as the mapping, but this time the radioactive beads are injected.

If you need a second radioembolization treatment, it will be 6 weeks after the first treatment.

Preparing for the Procedure

- Do not eat or drink anything for 6 hours before the procedure.
- Tell your healthcare provider what medicines you take (including Coumadin or other blood thinners, and insulin) and ask if you should stop taking them before the procedure.

How do I keep people around me safe from radiation exposure?

After treatment with Y-90 radioactive material, you will emit a small amount of radiation. These levels are quite low. After treatment, you have no special precautions to follow to limit exposing other people to radiation. It is safe for people to be around you.

In 1 to 2 weeks after your treatment, your radiation levels will go back to what they were before your treatment.

How active can I be?

- Do not drive for 2 days after the procedure.
- Limit walking up and down stairs for 2 days after the procedure.
- Do not lift more than 5 pounds for 10 days.
- Do not do any heavy exercise for 2 weeks to keep the insertion site from bleeding. Bleeding at the insertion site can be dangerous.

What are the side effects?

All of the following are part of a normal recovery after Y-90 radioembolization:

- Pain in the upper, right side of your abdomen for up to a week. The pain may move toward your shoulder and back. We will give you a prescription for pain medicine to help.
- Feeling very tired and worn out for up to 3 weeks after the procedure. This can be controlled by the Medrol pack. However, if you are diabetic, be sure to check your blood sugar level often, as the Medrol can raise your blood sugar.
- You may not have an appetite or may feel sick to your stomach. We will give you a prescription for anti-nausea medicine to help. It is important to eat, even though you may not feel like it so you do not lose too much weight.
- You may have a temperature of up to 101°F (38.3°C) for up to 2 weeks after the procedure.
- You may have a bruise or soreness where the catheter went in. The bruising can go down your leg. If we used skin glue on the insertion site to keep it clean, let the glue peel off on its own over time. Do not peel off the glue yourself.
Who can I contact with questions?

For any problems, concerns, or questions, call Interventional Oncology at (615) 343-9206.

After hours (between 3:30 p.m. and 7:00 a.m. on weekdays, and on weekends and holidays), call (615) 322-5000. Ask for the Interventional Radiology Fellow on call.

If you have an emergency, go to the nearest Emergency Room or call 9-1-1.