RADIOFREQUENCY ABLATION: TREATMENT OF YOUR CANCER WITHOUT SURGERY

What is Radiofrequency Ablation?

Radiofrequency (RFA) ablation is a minimally invasive treatment for cancer. This technique places a probe into a tumor under imaging guidance such as a CT or ultrasound. This probe heats up and destroys cancer cells.

What kinds of cancer can RFA treat?

Radiofrequency ablation is used to treat cancers in the liver, lung, kidney and bone. The best results from RFA are seen in cancers less than one and a half inches in diameter.

Why might I not be a surgical candidate?

- You may have other medical conditions that make surgery especially risky.
- If taking the tumor would not leave enough liver for it to function adequately
- You may have a tumors that has not responded to chemotherapy
- You may have a tumor that has come back after being removed surgically.
- You may have several small liver tumors that are too spread out to be removed surgically.

Will RFA hurt?

Radiofrequency ablation is usually performed under general anesthesia "put to sleep" so you will not experience pain during the procedure. You may have discomfort at the site of insertion of the probe or deep in the area of burn after the procedure. You will stay at least one night with IV pain medication to keep you comfortable after the procedure. Only about ten percent of patients will still have pain a week following radiofrequency ablation.

RFA probe

How many nights will I stay in the hospital?

You will likely stay one night after the procedure, but it is not unusual to stay a second night if you still require IV pain medication to keep you comfortable.

What are the risks of the procedure?

Risks of RFA include bleeding and infection (chance of infection requiring antibiotics is less than one in 1,000). There is also a very small risk of damage to adjacent organs

including the gallballder and bowel (3 to 5 %). The specific risks depend on where your tumor is located. This should be fully discussed during your consultation with the treating interventional radiologist.

How does RFA work?

Radiofrequency ablation passes electrical current into the tumor which heats and destroys the cancer cells. At the same time, heat from radiofrequency energy burns small blood vessels decreasing the risk of bleeding.

What happens to the tumor once it is burned?

The dead tumor cells are gradually replaced by scar tissue that shrinks over time.

How will I know if the RFA was successful?

Follow up imaging including CT, MRI or PET scanning will be performed generally between 6-12 weeks after the procedure to determine the size and viability (amount of tumor left alive). This is crucial to determine whether all of the tumor was killed or if follow up treatments are necessary.

What are the limitations of Radiofrequency Ablation ?

There is a limit to the volume of tumor tissue that can be eliminated by radiofrequency ablation. This is due to limitations with current equipment. Hopefully technical advances will permit larger tumors to be treated in the future. Radiofrequency ablation also cannot destroy microscopic-sized tumors and cannot prevent cancer from growing back.

Other facts about the benefits and risks of RFA

- Treatment-related serious complications are infrequent and discomfort is minimal.
- RFA is a relatively quick procedure and recovery is rapid so that chemotherapy may be resumed almost immediately in patients who need it.
- Roughly one in four patients may develop a "post-ablation syndrome" with flu-like symptoms that appear three to five days after the procedure and usually last about five days.
- Less than one percent of patients may develop a localized infection at the site of ablation. Patients who have had surgery that connects bile ducts to the bowel are at much greater risk of developing an abscess.