Radiofrequency and Microwave Ablation

What are radiofrequency and microwave ablation?

Radiofrequency ablation (RFA) and microwave ablation are minimally invasive treatments that use heat to destroy cancer cells. Liver, kidney, lung, and bone tumors are the most commonly treated tumor types. A needle is placed through the skin into the tumor and electrical current heats the cells to high temperatures, which completely destroys (ablates) the cells. The cancer cells then die and the area that has been treated gradually shrinks and becomes scar tissue. RFA and microwave procedures can be done in combination with traditional cancer treatments such as chemotherapy and surgery.

How is ablation performed?

You will arrive early for your procedure so that a nurse can check you in and you can speak with a doctor to make sure all of your questions are answered. Once you are ready, the nurse will start an IV so that anesthesia can be given to help you sleep and be pain free. The skin over the tumor will be sterilized and the doctor will numb the area with local anesthetic. The doctor then uses the CT scanner or ultrasound to guide a needle directly into the tumor. Once the needle is in the right position, the electrical current is passed through the needle to the tumor. The length of the treatment will depend on the size of the tumor. Usually, the procedure takes 2-3 hours. Sometimes you can go home the same day and sometimes you will stay in the hospital overnight for pain management.

Pre-Procedure Checklist

- You will need to pre-register before your appointment by calling 540-224-5200.
- Check in 1 hour and 30 minutes prior to your appointment time in the main lobby of Roanoke Memorial Hospital.
- You may not eat or drink after midnight the night before your procedure.
- You may take important medications (blood pressure, heart, etc) with a small sip of water.
- Please dress comfortably and leave your valuables at home.
- You need a responsible adult to drive you home.
- Bring a list of your medications with you for the nurse to review.
• If you are taking medications that thin your blood, you will need to consult the department for specific recommendations to decrease the risk of bleeding. You may call us at 540-981-7083 to speak with a nurse.

Immediately following your procedure
• No driving, operating heavy machinery, or making any important decisions for 24 hours.
• Light activity only for 24 hours after your procedure. Do not lift anything over 10 pounds.
• You may gradually resume your normal activity over the next few days.
• Start with light food. If you have no problems, you may progress to a regular diet.
• Keep the dressing clean, dry, and in place for the next 48 hours. You may remove it after 48 hours and shower at that time.
• Avoid alcoholic beverages and smoking or being around those who are smoking today.

What to report to your doctor
• If you become weak, faint, or dizzy
• If you develop severe pain
• Fevers greater than 101° F or chills
• If the site becomes red, warm, tender, or starts bleeding

For additional information, please visit:
http://www.sirweb.org/patients/bone-cancer/
http://www.sirweb.org/patients/breast-cancer/
http://www.sirweb.org/patients/kidney-cancer/
http://www.sirweb.org/patients/liver-cancer/
http://www.sirweb.org/patients/lung-cancer/

References:
http://www.sirweb.org/patients/liver-cancer/