

DEPARTMENT OF DIAGNOSTIC RADIOLOGY AND NUCLEAR MEDICINE

Patient Information Sheet Radiofrequency Ablation and Cryoablation

General Indications for the Procedure: Radiofrequency ablation (destroying by microwave heating) and cryoablation (destroying by freezing) are minimally-invasive methods that can be used to kill tumors in certain organs of the body, for example, in the liver or the lung.

Description of the Procedure: To ensure patients are as comfortable as possible during the procedure and because these procedures can be painful, patients are either put to sleep or given strong sedation medications by an anesthesiologist. CT or ultrasound pictures of the body are taken and used to decide the best place on the skin to put the instruments used in performing the procedure. The area is carefully cleaned with antiseptic solution, and sterile drapes are placed around the site. If the patient is not under general anesthesia, medicine to numb the skin (called a local anesthetic) is injected with a tiny needle. This may cause a brief stinging or pinching sensation. Once the area is completely numb, one or more special needles are introduced, watching carefully with CT or ultrasound to guide the needle (or needles) into the tumor. Once it is confirmed that the needle (or needles) is (are) in the correct place, they are connected to the power or cooling source, and the process of ablating/cryoablating (heating or freezing) the tumor will start. Once the ablation/cryoablation is complete, the needle (or needles) will be removed and a CT scan will be performed to confirm that the treatment has been completed. The procedure lasts about 60-90 minutes. After the procedure, the patient will go to a recovery area and be observed for 1-2 hours. The patients are usually admitted to the hospital for 12-24 hours mainly to control residual pain after the procedure.

Risks of the Procedure: The most common complications are bleeding, organ perforation, or ablation within other organs. The most important symptom after the procedure is pain. If the patient develops abdominal pain after the procedure, he or she should inform his/her doctor immediately, because he/she might need immediate testing to determine if the complication is serious. If a tumor in the lung is ablated, a possible complication is development of a “pocket of air” within the chest, due to air leaking from the lung. This pocket of air may be small or could be large, causing difficulty breathing and requiring insertion of a tube into the chest to drain out the air.

Alternatives to the Procedure: Many tumors can be removed by surgery. Depending upon the patients underlying medical condition, surgery may be a risky option.

Probable Consequences of Refusing the Procedure: If a patient decides not to have the procedure done and surgery cannot be performed to remove the tumor, the tumor could grow and make the patient’s condition worse.

Persons performing the procedure: The key portions of the procedure will be performed by an attending physician who is a member of the medical staff of Rush University Medical Center, a licensed physician’s assistant, or a resident or fellow in Interventional Radiology who will be observed and supervised by a member of the medical staff. Residents are licensed physicians in an approved residency program. Fellows are licensed physicians who have completed a residency in radiology and are in an approved post-residency training program. The parts of the procedures residents or fellows will perform will be based on their level of training and competence.

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