

Radiofrequency Ablation of Osteoid Osteomas

Osteoid osteoma is a benign, painful lesion that results in new bone formation. The osteoid osteoma causes dull pain, often worse at night, which is relieved by aspirin. These benign tumors rarely exceed 1.5 cm in diameter and may appear larger due to edema (swelling) and sclerosis (hardening). It normally appears in adolescents and young adults and is seen in males twice as often as females. CT scans (also called Cat scans) are the most efficient diagnostic imaging tool to evaluate these growths.

In the past, the therapy options for osteoid osteoma would include surgery to attempt resection or conventional treatment using nonsteroidal anti-inflammatory agents to help manage the inflammation and pain that surrounds the osteoid osteoma. Now Interventional radiologists are able to remove the osteoid osteoma with Radiofrequency Ablation.

Radiofrequency Ablation is a nonsurgical option, which offers a localized treatment that destroys the tumor cells with heat, while preserving the healthy tissue surrounding the tumor. Radiofrequency ablation of osteoid osteomas has given patients another option that is much less invasive with vastly shorter recovery periods or the other option which is long-term use of nonsteroidal anti-inflammatory agents.

How Do I Prepare for Radiofrequency Ablation?

The day before the procedure you cannot have any food or drink after midnight unless you have pills that need to be taken the morning of the procedure. Please be sure to inform your doctor of any medications that you will be taking the morning of the procedure.

What Should I Expect?

During the Procedure

Radiofrequency ablation is performed by an interventional radiologist using CT (Computed Tomography) for image guidance. Interventional radiologists are specially trained in minimally invasive procedures, such as Radiofrequency ablation.

Once all of the necessary paperwork is complete, a nurse from the Interventional Radiology suite will take you to prep for the procedure. For this procedure, you will be placed under general anesthesia (totally asleep) by an anesthesiologist. In the procedure room, the nurse will help you lie onto the exam table. The anesthesia will be administered to help you relax and the treatment area will be cleaned and covered with sterile sheets.

The CT scanner will take images of the osteoid osteoma to verify exact location for treatment. Once located the Interventional radiologist will insert the RFA probe (needle) through the skin to the tumor. Once the electrode is in position within the osteoid osteoma, radiofrequency energy will be applied. This energy comes in the form of heat that will burn the tumor from the inside out. Once complete the RFA probe will be removed and the area will be cleaned and covered.

After the Procedure

When general anesthesia is used, the patient will be taken to the post anesthesia recovery unit for approximately 1-2 hours. A nurse will be present to monitor vital signs and the treatment area until the patient is discharged. Let the nurse know if you are experiencing pain or discomfort during this time. Following recovery, you will be discharged to go home. Please be sure to have a friend or relative with you to take you home.

In very rare circumstances, the patient will have to remain in the hospital overnight for additional monitoring.

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