

THE POWER OF TEMPORARY Seed Implants

Treatment outcomes for prostate cancer have improved in the past few decades, because patients have benefited from medical advances such as permanent seed brachytherapy. Leading-edge cancer treatment facilities now are looking to an even more advanced version of treatment—temporary high dose rate (HDR) brachytherapy—to provide the best results possible.

FOR PROSTATE CANCER patients at Cancer Care Northwest in Spokane, HDR brachytherapy is providing an alternative to more traditional treatments.

“We started the program here about four years ago, and the concept of HDR brachytherapy is similar to permanent seed brachytherapy,” explains Wayne Lamoreaux, M.D., board-certified radiation oncologist at Cancer Care Northwest. “Permanent seed implants insert small, low-dose radioactive ‘seeds’ into the prostate that deliver radiation over several months and is done as a one-time procedure. HDR brachytherapy uses a high activity seed welded on a thin wire, which is temporarily inserted through hollow catheters placed into the prostate.”

During DHR brachytherapy, the radiation source travels down the catheters and pauses in precise, predetermined locations for a few seconds. Then, the source is carefully retracted and delivers another dosage of concentrated radiation. When the treatments



Dr. Lamoreaux

are completed, no radioactivity is left in the patient. “Treatments can be customized and the process allows for real-time assurance of dose delivery,” Dr. Lamoreaux says. “HDR brachytherapy can be accomplished in two days, consisting of two implants separated by approximately two weeks. Two treatments sessions, lasting 10-15 minutes, are given with each implant.”

The Basics of the Procedure

Patients are sedated during the procedure and epidural anesthesia is used for pain control. Catheters are surgically placed into the prostate through the perineum using a template. The catheter placement is performed with fluoroscopy and a trans-rectal ultrasound probe, providing the physician a real-time view of the prostate.

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“The implant procedure takes approximately an hour and a half,” says Dr. Lamoreaux. “After the procedure, we perform a computed tomography (CT) scan of the implant and the surrounding organs. Then, high-powered computer planning software is used to develop 3-D customized treatment plan providing tight dose coverage of the target and excellent sparing of the normal tissues.”

The treatment is delivered by connecting the implanted catheters to the computer controlled “after-loader” that drives the radioactive source to the precisely defined locations within the prostate.

“We wait approximately six hours between sessions, and after the second session, we remove the catheters,” Dr. Lamoreaux says. “The patient generally experiences minor bleeding that stops quickly. A second doublet of treatments follows two weeks later. The side effects are usually minor and generally dissipate about two weeks after the procedure. Most patients can go home the same day.”

To learn more about HDR brachytherapy and other services available at Cancer Care Northwest, visit cancercarenorthwest.com. To refer a patient, call (509) 228-1000. ●

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