



## WHAT TO EXPECT FROM A SEED IMPLANT: THE FIRST TWELVE MONTHS

### **RADIATION ONCOLOGY**

STEPHEN M. EULAU, M.D.  
MEDICAL DIRECTOR  
DANIEL LANDIS, M.D., PH.D.  
ROBERT TAKAMIYA, M.D.  
DIRECTOR OF EDUCATION

### **ASSOCIATED UROLOGISTS**

EMILY BRADLEY, M.D.  
PHILIP CHAPMAN, M.D.  
JEFFREY COOPER, D.O.  
ANDREW DECK, M.D.  
JAMES DOWNEY, M.D.  
JEFFREY EVANS, M.D.  
JEFFREY FRANKEL, M.D.  
JAMES GASPARICH, M.D.  
THOMAS GREEN, M.D.  
DOUGLAS GRIER, M.D.  
ROBERT IRETON, M.D.  
MARCUS KAUFFMAN, M.D.  
JAMES KUAN, M.D.  
JOEL LILLY, M.D.  
JOHN MALDAZYS, M.D.  
JOSEPH MARQUEZ, M.D.  
JOHN S. MULLEN, M.D.  
TANYA NAZEMI, M.D.  
ERNEST NOREHAD, M.D.  
RICHARD PELMAN, M.D.  
JAMES PORTER, M.D.  
DAVID REED, M.D.  
TIMOTHY RODDY, M.D.  
NARENDER SOOD, M.D.  
ERIK L. TORGERSON, M.D.  
DAVID WAHL, M.D.  
MARTIN WALL, M.D.  
ROBERT WEISSMAN, M.D.  
RICHARD WONDERLY, M.D.

Over the past 15 years, the physicians at the Seattle Prostate Institute have successfully treated thousands of patients for prostate cancer with seed implants. The vast majority of these patients are doing well and are very pleased with the results of their treatment. We believe that for many patients seed implants are the easiest and the most convenient treatment option. We also believe that seed implants have the least impact on quality of life of all the conventional treatments for prostate cancer. However, like all medical procedures, seed implants are not completely free of side effects and risks. The purpose of this handout is to describe what will happen the day of the implant procedure and to prepare you for the expected temporary side effects in the first year after a seed implant. Fully informed, you will be better equipped to undergo treatment with minimal difficulty. We strongly encourage you to carefully read this material to gain a clear understanding of what to expect.

### **The Seed Implant Procedure**

The seed implant is an outpatient procedure that takes place in an operating room at Swedish Medical Center located near the Seattle Prostate Institute. Following anesthesia, thin needles containing radioactive seeds are precisely placed under ultrasound guidance through the skin between the scrotum and rectum and into the prostate. No incisions or cutting is necessary. Seed placement usually takes about 30-45 minutes but you should be prepared to spend about half the day going through preoperative check in preparation and recovery time after the implant. In preparation for the seed implant, you will receive specific instructions regarding medications, food and liquid intake and bowel preparation. **Be sure to follow these directions to the letter. It can impact the success of the procedure.**

The staff at the Swedish Medical Center operating rooms is very familiar with this outpatient procedure. After checking in at the hospital, you will meet with the doctor who will administer the anesthetic for your implant. Together you will decide on the type of anesthesia to be used in your case. The first choice is a spinal anesthetic where a thin needle is inserted in the lower back and a Novocaine-like medication is injected. With spinal anesthesia, patients are temporarily numb from the waist down and will not feel any of the needles being placed. In addition to the spinal anesthetic, patients commonly receive a sedative intravenously so that they are more relaxed and often sleep through the procedure. The spinal anesthesia is the most frequent choice of patients and the one that we usually recommend whenever possible. The second choice is a light general anesthetic so the patient is completely "out." This works well but patients are often groggy for some time after the procedure. The anesthesiologist will review the details including both pros and cons of these two approaches. Sometimes the type of anesthetic is determined by the patient's overall medical condition; other times it is a choice for the patient to make.

After the implant is completed, you will be moved to the surgical recovery room for a short time. There the nurses will monitor your vital signs until they are sure everything is normal and the

anesthetic is beginning to wear off. Normally you will have a catheter in your bladder at this point. You will then be transferred to the “C-Pod” recovery area to allow the last effects of the anesthesia to wear off. The catheter is usually removed at this time and you will receive final instructions for post-implant care, specific appointment times for your check-up visit at the Seattle Prostate Institute the next day and a specific appointment time for your post-implant CT scan that is usually done the next day. You will also receive prescriptions for any medications your doctor feels are necessary for you to take over the next few days. The medications prescribed for you may vary depending on your condition, but often include an antibiotic, a pill for pain and a medication to help your bladder empty more effectively.

### **The First Few Days After the Implant**

For the first few days, you will experience some temporary side effects. These side effects are mostly attributed to the catheter that was in place for an hour or so and the needles inserted into the prostate. These side effects usually consist of a burning sensation when urinating (which may be intense the first day), bruising and tenderness between the legs when sitting on a hard surface and some blood or small clots in the urine. Less commonly, patients may experience a slow and erratic urinary stream and a strong sense of urgency when the need to urinate arises. Pain, other than the tenderness when sitting, is very uncommon. Although you will be given oral pain medication when you leave the hospital, most patients never need to take it. The side effects of burning on urination, tenderness between the legs and blood in the urine usually subside rapidly over the first week following implantation. You should avoid strenuous physical activity and take your medications as directed during this period.

### **The First Few Months After the Implant**

Remember that the seeds are giving off radiation to treat the cancer for many months before they become inert and are no longer radioactive. During this period, patients are expected to have temporary side effects from the seed radiation that are mostly urinary in nature. Most patients describe three urinary side effects for several months: 1) Frequent urination (about every 2-3 hours day and night), 2) Urgent urination (when you need to go, you will need to get to the bathroom in just a few minutes) and 3) Slower urination (the urinary stream is weaker, slower, more difficult to start and may dribble). Pain with urination is rare but some patients report mild burning when they first start to urinate. Incontinence, or leaking urine, is almost never a problem after seed implants unless you cannot find a bathroom in time when you have the urge to urinate.

The severity of these temporary side effects varies greatly from patient to patient. Most patients describe these problems as mild enough to be a temporary inconvenience that does not modify their lifestyle. Rarely, patients do experience these problems to a more severe degree. These patients may have certain conditions of the prostate or bladder that make them more likely to have problems after a seed implant. If you have these conditions your doctor will discuss this with you at the time of your consultation.

The length of time that these side effects last also varies from patient to patient. Generally, the urinary problems peak around 3-8 weeks after the implant and then begin to gradually improve. The average time for the urinary side effects to disappear completely is usually about 6-10 months. Some patients are fortunate and their side effects are gone and they are back to normal in three

months while others may take 12 or even 24 months. In the end, the majority of patients feel their urination has returned to the same level it was before their seed implant.

One of the problems some men face in the first month after a seed implant is the need for a urinary catheter. (A catheter is a small rubber tube inserted through the penis into the bladder to drain urine, usually into a small plastic bag strapped to the leg under the pants.) This is caused by swelling of the prostate after the seed implant so that the urine passage (urethra) is temporarily blocked and the patient is unable to urinate. This happens to about one out of every ten men who have a seed implant. Depending on other conditions of the prostate your risk may be higher or lower. Your doctor will discuss your particular risk for a catheter. If a patient needs a catheter, it usually happens 1-3 weeks after the implant. It is rare right after the implant and very rare beyond one month. The average time a catheter is needed is about two weeks. In rare cases (2% of patients) the prostate swelling is prolonged and the catheter is needed for several months. There are a few patients every year who eventually need minor surgery to open the urinary passage because of this blockage, but the vast majority have never to face these problems.

Side effects from a seed implant that affect the bowel movements are rare. In the first few weeks after the implant about 10% of men report having two to five smaller bowel movements a day instead of their usual one a day. Some say they have difficulty sensing a bowel movement and will sit when urinating as a precaution. These effects, if they occur, only last a few weeks and then bowel movements return to normal for almost everybody.

Many patients inquire about resuming sexual activity following a seed implant. Your doctor will review the possibility of impotence. Following the trauma of the seed placement and the inflammation caused by the seed radiation, many patients are uninterested in sexual activity for several weeks or months. However, it is permissible to resume sex shortly (two weeks) after the implant. Remember that the seeds do not make any bodily fluid radioactive (either urine or semen), so there is no danger of significant radiation exposure to the partner. If sexual activity is attempted soon after the implant, be prepared for a burning pain lasting for a few minutes after ejaculation and discoloration of the semen. This is very similar to the effects of a prostate biopsy. This discomfort is not dangerous and will not affect your implant. Some patients worry that a seed could be passed with the semen during ejaculation and contaminate their partner. This is an exceedingly rare occurrence and even if it did happen, we do not believe it would cause harm. However, to prevent this rare possibility, we recommend that a condom be used during the first half-life of the seed (three weeks for Palladium-103 and two months for Iodine-125).

The purpose of this handout is to describe the implant procedure and to discuss what temporary side effects patients are likely to experience in the first year after the seed implant. It is not intended to review the possibility of permanent damage to bladder function, rectal function, radiation safety precautions, and erection function. Although the chance of permanent damage following seed implants is low, like all prostate cancer treatments, there is a possibility of permanent problems. Your doctor will review these probabilities with you at your consultation.