

2nd Annual Prostate Cancer Forum An Educational Initiative

Prostate Cancer Treatment: What's Best for You

Steven Lucas, MD

I. Prostate Cancer Diagnosis

One in six men will be diagnosed with prostate cancer in their lifetime; it is the second most common cancer in men. Suspicion of cancer can arise from an elevated PSA or a nodule felt on a prostate exam. A urologist can help diagnose prostate cancer by performing an ultrasound-guided prostate biopsy. Upon diagnosis a physician will gather information regarding the patient's age, general health, family history and preferences. Clinical information will also be gathered including the PSA, Gleason Score, number of positive biopsies and stage of cancer on exam. These factors help the physician and patient decide whether the patient will undergo treatment or surveillance.

II. You are a candidate for surgery. What options do you have?

The surgical options include the open radical prostatectomy in which the prostate is removed from an open incision. The average hospital stay is about two days, and the catheter remains in the bladder for 7 to 10 days. The patient can probably return to moderate activity in about four weeks. Another type of surgery is the robot-assisted laparoscopic prostatectomy for which the average hospital stay is about one day. The catheter stays in the bladder for 7 to 10 days, and one may return to moderate activity sooner, perhaps two to three weeks.

III. Comparison of Open and Robotic Prostatectomy

There is a study that summarizes 21 comparative articles pertaining to open versus robotic prostatectomy. A couple of important points are that there is probably less blood loss with the robotic surgery, and there are probably less incisional complications. Other than that, in terms of other things that we find important in cancer surgery, the results are fairly similar. A good thing about the new technology is that it has brought about a global improvement in both types of surgery.

IV. Proximity of Prostate to Urethral Sphincter, Bladder and Nerve Bundles

All treatments for prostate cancer can impact urine function and erectile function because of the proximity of the prostate to the urethral sphincter, the bladder and the nerve bundles.

V. What impacts erectile function and urine function?

The best predictor of erectile function is what the function of the patient's erections was before surgery. It also depends on age and general health in addition to the surgeon's ability to perform what is called a nerve-sparing surgery, which is trying to remove the prostate while sparing all of the nerves that are close to the side of the prostate. This will depend on what type of disease the patient has. In addition, a patient's urine function before surgery is going to be one of the better predictors of how they will function after surgery. Other contributing factors include the prostate size and the patient's age and weight, as they may also play a role in urine control after surgery.

VI. Other Surgical Choices

Other surgical choices include the perineal prostatectomy, which is an open surgery performed with an incision beneath the scrotum in the perineum. It may offer a quicker recovery than abdominal incisions, but it has become less popular with urologists today.

VII. Cryotherapy

Another option is cryotherapy where the prostate is frozen at extreme temperatures to kill the prostate cancer. This offers the patient a same-day surgery, but it requires a longer catheterization to promote healing in the area that was frozen. This is ideal for low grade and lower stage cancers or for recurrence after other treatment modalities. It can be associated with a little bit higher rate of erectile dysfunction.

VIII. Conclusion-Choosing Surgery

Candidates for surgery are those who can safely tolerate surgery, are in good general health and do not have distant spread of their cancer to other organs such as lymph nodes or bone. The decision on the type of treatment should reflect the patient's preference and the disease characteristics.

Participant

The choice should also be based on the skill of the surgeon, particularly when it comes to robotic surgery. You want to find a surgeon who has done a lot of them and done them regularly. It has been estimated to take a surgeon 100 robotic surgeries for him to have the same skill level as he had doing open surgery.

IX. Questions

Participant

Do you recommend hormone treatment before surgery?

Steven Lucas, MD

Hormone therapy hasn't been validated in a series with surgery specifically. With some of the other treatment modalities it is commonly used, but I can't say without question that it would be a benefit. It does seem like a reasonable idea.

Mr. Simons

Do you also talk about penile rehabilitation with your surgical candidates?

Steven Lucas, MD

There are different methods for penile rehabilitation. Some patients will be started on PDE5 inhibitors, and they may start that early on and have you take it a couple of times a week to promote blood flow back to the penis. The key is you have to have some patience with rehabilitation because it takes time.

Participant

How do you shop for a surgeon?

Mr. Simons

First of all, ask the surgeon how many procedures he has done, and many states have a record of how many surgeries are performed at any given institution. There are independent sources of information.

Prostate Cancer: Radiation Therapy

Jordan Maier, MD

I. Prostate Cancer - Overview

There are many different options for treating prostate cancer, and when you read about it, it is very difficult to narrow down the options to what is best for you. We try to tailor the individual treatment to the individual person, and the radiation therapy options include external beam radiation therapy, radioactive seed implant, different types of surgery, cryotherapy and hormone therapy, whether a treatment by itself or in conjunction with other treatment. The most important thing is that you take a multi-disciplinary approach to decision making, and there is value in getting a second opinion. You want to feel comfortable with not only the type of treatment that you select but who is delivering that treatment.

II. Principles of Radiation Oncology

Radiation is essentially a daily x-ray treatment. It's targeted at the prostate, and it is used for therapeutic rather than diagnostic purposes. The radiation works by killing rapidly dividing cells, and some of the

faster-growing normal cells are affected though they have the capability of regenerating and repairing themselves. One of the downfalls of radiation is the time commitment. Typically for prostate cancer, it is at least eight weeks of daily treatments Monday through Friday. On the up side, however, they are very fast, and they are easy to tolerate.

III. Advantages/Disadvantages of Radiation Therapy

Radiation therapy has very similar outcomes to surgery in terms of long-term cure rates. There is minimal impact to quality of life, and it is easy to tolerate. The disadvantages to radiation therapy include the time commitment, the irritative symptoms, and the side effects.

IV. Keys to Successful Treatment

The goal of radiation therapy is to deliver a high dose to the prostate and avoid the normal tissue like the bladder, rectum and some of the bones. That is accomplished through more sophisticated treatment planning and the daily delivery of the treatment. When we are doing the planning session, we want to deliver a high dose of radiation to the prostate while avoiding the bladder and the rectum. This involves use of the treatment planning systems where we can come from different angles. We know before you start your treatment what the bladder is going to get, what the rectum is going to get and what they can tolerate. We don't exceed their tolerance so long term there isn't necessarily any bladder or rectal injury and everything should be recovered.

V. Varian IX

We use the Varian IX machine, but for the most part the various types of equipment that can be utilized provide similar advantages. The radiation is consolidated on the prostate, and a daily scan is taken of the body to localize the prostate and ensure proper positioning. The Varian IX has a rapid arc, or the next generation of IMRT, intensity modulated radiation therapy. It's what allows us to deliver the dose accurately and precisely and faster than most treatments. Biologically it is more important because the same dose is delivered in a shorter period of time, and patient comfort wise you don't want to be on the table for more than 10 or 15 minutes. The daily CBCT for prostate localization uses the markers that are placed to do a mini CT scan of the patient's body on a daily basis to make appropriate adjustments.

VI. Side Effects

The short-term side effects of radiation therapy may include bladder irritation with increased frequency, rectal irritation with diarrhea and fatigue. The long-term side effects include erectile dysfunction and rectal irritation. Most men go through the treatment without any problems whatsoever whereas some have enough symptoms that they require medicines.

VII. Radiation or Surgery: What's Best for You

The patient is able to take all of the information and make the best decision for him. Every patient that comes to Karmanos will hopefully see the surgeon and a radiation oncologist so that he can make a well-informed decision.

Mr. Simons

What about the cost factor for the different treatment options?

Steven Lucas, MD

In terms of surgery, robotic surgery is the most expensive treatment modality, and the situation now is that 90% of prostate surgery is performed robotically. Surgeons may very well be more experienced with robotic surgery than they are with open. The cost to the healthcare system is \$25,000 versus \$15,000. There is a \$6,000 to \$10,000 difference.

Jordan Maier, MD

The more sophisticated we get with the radiation therapy treatment, the more expensive it is, and that has to be balanced against better outcomes. We have to feel comfortable that we are delivering the right treatment at the right cost. In terms of proton beam, it is all marketing and PR. We haven't shown any difference for prostate cancer in terms of control or lower incidence of side effects.

Kristen Kingzett, MD

We don't have a proton beam facility in Michigan. I know there are other hospital systems nearby who would like to acquire one. It is an ongoing debate, and there are 13 centers around the country that have proton beam.

The Medical Oncologist Perspective

Elisabeth Heath, MD**I. Role of the Medical Oncologist**

Typically, when the medical oncologist shows up, it is because they get asked to talk about hormone therapy, they get asked to have a discussion about chemotherapy, or to talk about clinical trials. In many centers around the country, we are the doctor that talks about those things.

II. Hormone Therapy

If I tell a man that hormone therapy is much like what his wife or significant other went through when she went through the change, they know what I am talking about. The side effects are exactly what they think they would be, but we spend the time to explain what happens to the patient's system when they have to have a hormone injection. Sometimes it is used to reduce the prostate size, and sometimes it is because it is part of the treatment with radiation. The discussion often is your disease is this many cores, with this percentage, with this score, and you are automatically supposed to know what that means. The patient just wants to know if it's bad, or if it's okay. Another important question to ask the doctor is how long you will be on the treatment.

III. Chemotherapy

Another thing that we do as medical oncologists is talk about chemotherapy. A lot of folks imagine chemotherapy as being tied to an infusion bag, kind of sick, laying down and playing the patient part. That can be true, but in men who have good standardized local disease, we often basically offer it as part of clinical trials to get all of the cancer cells that maybe popped out of the prostate. It is an intravenous infusion, it is typically not standard in men with localized disease, and it is offered in a clinical trial for men with high-risk or high-burden disease.

IV. Clinical Trial

We have to figure out how to advance the field, and to do that we have to show the data. A clinical trial is a type of research study that tests how well a new medical approach works in people. It tests new methods of screening, prevention, diagnosis and treatment of disease. There are pros and cons about going on a study, and patients should never feel pressured. They should know that there are options and lots of tools that can be discussed. Only three percent of all cancer patients go on clinical studies, however, and that is why things move so slowly.

V. Role of the Medical Oncologist

The role of the medical oncologist is to help the patient decide what the right treatment option is for them by considering their lifestyle, what they do for a living, what matters, how they function within their family, whether they travel and other things.

What' the Best Treatment for YOU?

Kristen Kingzett, MD

I. The Role of a Primary Care Provider

Most often it is the primary care provider who takes the action that leads to the diagnosis of prostate cancer. It's usually the primary care provider who does the screening and has the conversation with the patient about whether or not he should get his PSA checked. From that information, the primary care providers helps the patient determine when or if they need and biopsy and refers them to the appropriate "next step" doctor.

II. After Your Diagnosis

The primary care provider's role after diagnosis is to act as an unbiased sounding board in helping the patient review the options he has been given. The PCP knows the patient's health history very well, and those factors can be brought into the treatment decision-making. The patient's function before diagnosis really helps determine his dysfunction after treatment. I consider myself one of the tools in the patient's tool kit.

III. The Manager

Primary care is really a management field. If the patient is considering surgery, the PCP will need to do a pre-operative evaluation. Other health problems are ongoing, and some of the treatments can make those other medical problems get worse. When a patient has a symptom or a side effect, he wants somebody to help him with it fast. The PCP can work with the team during the treatment and will be there long afterwards to work out some of the long-term effects.

IV. Talker and Listener

Most cancer specialists are experts in explaining cancer to their patients, but it's nice for the patient to have a back-up resource that they already know. Sometimes it takes patients being able to hear the information more than once. The PCP can also work as a coordinator in between all the different caregivers. Finally, I am there to listen to the patient. Ultimately, you decide, and men who take an active part in their treatment tend to feel better about their treatment than men who let others decide for them.

V. Questions to Ask: Your Doctor

The grade is how aggressive the cancer cells are whereas the stage is how far the disease has gone. Another question to ask the doctor is what the goal is of treatment and the possible side effects. The benefits, risks and possible side effects of each treatment are discussed, and another topic is how treatment will affect the patient's normal activities. Additional topics to talk to the PCP about are how you will know if the treatment is working, the chance the cancer will come back, whether you will need to stay in the hospital, what the treatment will cost and whether a clinical trial would be appropriate. Patients also want to know how they can prepare for treatment, what they can do to take care of themselves, how often they will need check ups, what information they should share with the doctor, and whether the doctor could recommend other doctors to get a second opinion from.

VI. Questions to Ask: Yourself

Choosing active surveillance is taking the option of no treatment at this time. Some questions for the patient to ask himself include whether he can accept that cancer will remain in his body and whether the idea of treatment side effects is worse to him than the idea that the cancer may progress without treatment. Questions to ask regarding surgery are do you want the cancer removed, are you able to accept possible serious side effects, and are you able to accept you may still need radiation therapy after your surgery

VII. Lots of Questions

There are lots of questions, but the primary care doctor is there to help the patient get the answers he needs.

Choosing a Treatment Option for Localized Prostate Cancer

I. Important Issues

You have heard about radiation, surgery, and active surveillance. What is the decision-making process? Education and information is an important part of making the decision. Communication has also been brought up several times as being important in the decision-making process. Another piece that is important is understanding the patient's values and what is important to him in going through the process. The issues that are most important to patients include cancer eradication and control in addition to treatment-related side effects and quality of life. Other issues may include out-of-pocket costs and the effect of treatment on ability to work, and that the treatment may be perceived as time-consuming or disruptive.

II. Who influences the treatment decision?

Physicians certainly influence the treatment decision, and good patient-physician communication is vital. Patients should bear in mind, however, that physicians could have a bias based on their treatment specialty. Spouses and family members often influence the treatment decision as well though spouses tend to be less concerned about side effects and quality of life.

III. Making a Treatment Decision for Localized Prostate Cancer can be Difficult

There is no single "best" choice, and the decisions are sometimes called "close call" decisions. There is uncertainty involved, and patients need to understand the benefits and the harms.

IV. What is a patient decision aid?

A patient decision aid is a tool intended to prepare people to discuss close call decisions with their physicians and participate in decision-making. They are intended to supplement physician counseling, not replace it, and they may be used before or after counseling with a physician.

Patient decision aids should provide evidence-based information about a health condition, including the options, associated benefits, harms, probabilities, and uncertainties related to treatments. They can help patients to recognize the value-sensitive nature of the decision and clarify their values in relation to benefits, harms, and uncertainties. In addition, they should provide structured guidance in the steps of decision-making and communication of the patient's values with others involved in the decision.

A decision aid can affect knowledge, expectations, congruence between patient values, the chosen option, decisional conflict, decisional regret, satisfaction with the decision-making process and satisfaction with the actual decision.