



Urological Associates, P.C.

of the Iowa and Illinois Quad-Cities Region

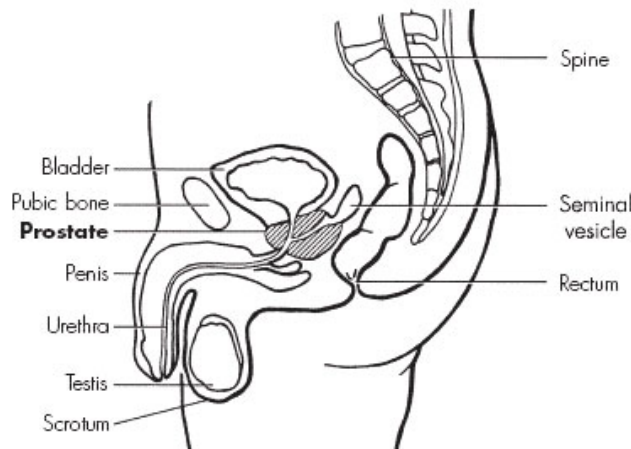
Prostate Cancer

General Information

Prostate cancer is the most common non-skin cancer diagnosis in men and the second most common cause of cancer-related deaths. For 2021, the American Cancer Society estimated around 248,530 men will be newly diagnosed with prostate cancer and around 34,130 men will die from the disease. One in 8 men will be diagnosed with prostate cancer in their lifetime.

The prostate gland sits below the bladder and works in conjunction with the seminal vesicles to produce fluid that is expelled during ejaculation.

This handout is a general overview of potential treatment options for localized prostate cancer. Localized prostate cancer means that the cancer has not spread outside the prostate.



Treatment Options for Prostate Cancer

Treatment for prostate cancer depends on a number of factors including the progression of the cancer, the man's overall health, and his unique risk factors for advancement of the cancer. For some men with low-risk prostate cancer, active surveillance may be appropriate. Definitive treatment, such as surgery and/or radiation is offered to men with prostate cancer that hasn't spread. Cancer that has spread outside the prostate is treated with hormone therapy, which is not discussed in this handout.

Active Surveillance

For men who are diagnosed with small non-aggressive tumors, active surveillance may be an appropriate option. Non-aggressive tumors are typically classified as slow growing. Active surveillance requires close monitoring of your cancer to determine if it has grown/progressed. If an advancement of your cancer is detected, definitive treatment options such as surgery or radiation will be discussed.

Active surveillance is considered for men with very low risk* or low risk** prostate cancer as defined by the National Comprehensive Cancer Network (NCCN). In addition, some men with 'favorable intermediate risk' prostate cancer may be candidates. Genetic testing of the tumor may also be done to help determine the risk associated with your specific tumor.

While strategies for active surveillance vary widely from practice to practice, here at Urological Associates, PC (UAPC), we frequently monitor your Prostate Specific Antigen (PSA), perform routine Digital Rectal Exams (DRE), as well as periodic biopsies. MRIs can also be used for monitoring prostate cancer growth. We recommend PSA checks every 6 months, yearly rectal exams, and periodic biopsies.

Active surveillance consists of closely monitoring your prostate cancer for growth and change. The decision to come off of active surveillance also varies widely and can be based on the decision of the urologist or the patient.

*Very low risk prostate cancer- Stage T1c, 3+3, PSA less than 10ng/ml, cancer in 1-2 biopsy cores with no more than half showing cancer and PSA density of less than 0.15ng/ml/g.

**Low risk prostate cancer- Stage T1 to T2a, 3+3 and PSA less than 10ng/mL.

Advantages of Active Surveillance

The main benefit of active surveillance is the decreased risk of side effects/complications from definitive treatment. The risk and benefit of definitive treatment needs to be discussed with your urologist.

Disadvantages of Active Surveillance

One disadvantage with Active Surveillance is the anxiety and psychological stress that can occur for both men and their loved ones while monitoring their prostate cancer. For some the psychological effects can be debilitating. For those men, definitive treatment will be considered even without evidence of cancer progression.

Even men with very low risk, low risk, and favorable intermediate risk prostate cancer can develop metastatic disease and die from prostate cancer. It is estimated that 4% of men on active surveillance will develop metastases within 10 years of diagnosis, and less than 0.5% will die from the disease (Matulewicz, R.S. et al, JAMA, 2017).

Definitive Treatment

Robotic Prostatectomy

Prostatectomy is the removal of the entire prostate along with the seminal vesicles. During surgery, the prostate must be separated from the bladder and the urethra below. After removal, the bladder must be reconnected to the urethra to allow urine to exit the bladder. In addition, depending on your cancer staging, lymph nodes may need to be removed as well.

Advantages of Surgery

Surgery is considered a cure for approximately 70% of men. Surgery provides definitive pathological information and staging of the cancer. With this information, further treatment options can be provided if necessary. In addition, if the cancer should return after surgery, typically radiation can be done as a second line of definitive treatment.

After surgery your PSA should be undetectable. We will routinely monitor your PSAs.

When a prostate is removed, it can be done either with an open incision or with robotic assistance. An open prostatectomy involves a larger incision and more surgical time. At UAPC, our surgeons specialize in robotically-assisted prostatectomies. Performing robotically-assisted prostatectomies result in less blood loss, a shorter hospital stay, less risk of requiring a blood transfusion, and an overall quicker recovery.

With robotic surgery three small incisions are made to allow the instruments and a camera to reach deep into the pelvis. The abdomen is expanded by filling it with carbon dioxide, which allows the surgeon more room to work. The incision around the belly button is enlarged to allow removal of the prostate. Generally, a drain is left in place to allow for quicker recovery. With robotically-assisted surgery, the surgeon sits at a console and controls the movement of the robotic arms.

Disadvantages of Surgery

The two major side effects of a prostatectomy are urinary incontinence (involuntary leakage of urine) and impotence (loss of erections).

Urinary incontinence which typically occurs with coughing, straining, and vigorous activity happens because the muscles responsible for controlling urination are closely associated with the prostate and are negatively affected during surgery. The muscles can be strengthened with time and effort. We recommend Kegels and Physical Therapy, both before and after surgery. It will take time for your muscles to heal. One year after surgery most men are dry or only need a thin pad for protection. Unfortunately, some men will have chronic bothersome incontinence following surgery and may be a candidate for additional surgery to help relieve the leaking.

Erectile dysfunction or impotence occurs in all men after a prostatectomy. For men interested in regaining their erectile function we typically recommend starting on medication (i.e., Viagra, Cialis or Levitra) shortly after surgery. This is known as penile rehabilitation. Erectile function can take up to two full years to return. It does not return in all men. Additionally, some men report loss of some or all sensation to the penis. When men climax, it can either be associated with dry ejaculation (nothing comes out) or be accompanied by urine.

All surgery has inherent risks. A few of the risks include infection, bleeding, and damage to surrounding structures such as the rectum. In addition, anesthesia (or the medication to make you sleep/help with pain) comes with its own risks including stroke, heart attack, and even death in rare circumstances.

Radiation

Radiation therapy is the use of high doses of radiation (energy beams) to destroy cells, in this case, prostate cancer cells. Radiation works by damaging the DNA of cancer cells, thereby leading to cancer cell death. Once dead, the cells are broken down and removed by the body.

Radiation therapy is administered externally or internally. External radiation is delivered in many different ways. While each method has its own advantages as well as disadvantages, the end goal is the same: destroy the prostate cancer cells while minimizing damage to the surrounding healthy tissue. Photon therapy is the most common type of radiation used to treat prostate cancer (the same energy used to take an x-ray, although at much smaller doses). Typically, this type of radiation is given via three-dimensional conformal radiation therapy (3D-CRT) or the more advanced intensity modulated radiation therapy (IMRT). IMRT is the main type of radiation offered in the Quad Cities.

Proton therapy is a newer type of radiation that uses proton energy to treat prostate cancer. This type of energy may be associated with less damage to surrounding tissue. Unfortunately, due to cost and the size of the machines used to produce proton energy the widespread use is very limited. The closest proton therapy center is at Northwestern in Chicago, IL.

When radiation is administered internally for the treatment of prostate cancer it is called brachytherapy. Brachytherapy uses smaller radioactive implants known as seeds (each one about the size of a grain of rice) that are placed throughout the entire prostate. The seeds then admit radiation, killing the nearby cells. Brachytherapy is typically administered by a urologist and radiation oncologist together. Solitary brachytherapy is generally considered treatment for low risk or favorable intermediate risk prostate cancer.

Radiation therapy is managed by a Radiation Oncologist. If you elect to proceed with radiation therapy, we will refer you to a local radiation oncologist or one of your choice.

Advantages of Radiation

External beam radiation is thought to offer very similar disease-free survival rates as surgery. The key advantage of radiation is the avoidance of a major surgery. In addition, urinary incontinence is much less common with radiation therapy than with surgery. While sexual dysfunction does occur with radiation therapy, the decline is slower than with surgery.

Disadvantages of Radiation

Proctitis and Cystitis are two chronic conditions caused by radiation damage to the surrounding healthy tissue and are unique to radiation therapy. Proctitis is inflammation of the rectum. It can lead to bleeding, diarrhea, and stool leakage.

Cystitis is the inflammation of the bladder. Men can suffer from burning with urination, bleeding, and increased urgency. Typically, the symptoms of proctitis and/or cystitis

lessen over time. However, they are chronic, non-curable conditions which will ebb and flow throughout the rest of life.

Another chronic condition that can occur is lymphedema. It occurs when the radiation damages the surrounding lymph nodes. When the lymph nodes are damaged, fluid cannot move back to the heart as easily. The fluid can then collect in the legs and groin area causing swelling.

One very common, but typically not chronic side effect, of radiation therapy is fatigue or the feeling of being tired. Typically, the feelings of fatigue drastically decrease and/or go away within a month of treatment ending.

The major downside to proceeding with radiation alone is the risk of complications should you experience a reoccurrence of the prostate cancer. Surgically removing the prostate after radiation, known as a salvage prostatectomy, is a much higher risk operation than a regular prostatectomy.

The act of actually receiving radiation is not (and shouldn't be) painful. However, some of the side effects can be.

An in-depth discussion of radiation options should be had with a radiation oncologist if interested.

Disclaimer

This handout is not intended to be all-inclusive. Instead, it is meant to be a starting point as we progress through the treatment of your prostate cancer.

Resources- keyword prostate cancer

www.cancer.org

www.cancer.gov

www.nccn.org

www.emedicine.com

www.mskcc.org

Local Support Group

www.UsTOO.org