

Prostate Cancer: What every man should know

Among the cancers that only affect men, the most important one is prostate cancer. Other than skin cancer, prostate cancer is the most common cancer among men. One out of eight men will be diagnosed with prostate cancer sometime during his lifetime.

Anatomy: What is the prostate gland?

The prostate gland is one of the reproductive organs in males. It is a small walnut-shaped gland located below the urinary bladder and in front of the rectum. Seminal vesicles, the glands that produce semen, are located just behind the prostate. Urine from the urinary bladder and semen from the seminal vesicles, enter a hollow tube called the urethra. The urethra goes through the middle of the prostate gland.

Enlargement of the prostate can cause a blockage in the passage of urine. Tumors or cancers originating from the prostate can also give similar symptoms.

What are the symptoms of prostate cancer?

Common symptoms are:

- Difficulty in urination
- A weak stream of urine
- Waking up many times in the night to urinate
- Blood in the urine or semen
- Erectile dysfunction

Some of these symptoms can also be seen in benign enlargement of the prostate (BPH). It is important to see a doctor if any of these symptoms are present.

If not diagnosed and treated early, prostate cancer can spread to other organs such as the bones, urinary bladder, rectum, and lymph nodes. Bone pain, pain during urination, bleeding from the rectum, and back pain are other possible symptoms in later stages.

Who gets prostate cancer?

Men over 50 are at a higher risk of getting prostate cancer. It is very rarely seen in men under 40 years of age. Sixty percent of prostate cancer occurs after the age of 65.

Having a father or brother with prostate cancer increases a man's risk of developing prostate cancer. There are some inherited genetic changes that will increase the risk of developing

prostate cancer in some families. Examples are the BRCA1 or BRCA2 genes (commonly known as the breast cancer genes) and Lynch syndrome.

Early Diagnosis Can Lead to Cure

Diagnosing prostate cancer at an early stage is very important in planning the right treatment and to prevent cancer from spreading to other organs. A simple blood test called PSA (prostate-specific antigen) is used as a screening test for prostate cancer.

Prostate-specific antigen is a protein made by the cells in the prostate gland. A very small amount of PSA is normally found in the blood. In patients with prostate cancer, this level is elevated. Having a high PSA level will raise suspicion about cancer and will have to be followed up with more diagnostic tests.

PSA levels under 4 ng/ml are usually seen in benign conditions. If the PSA level is more than 10 ng/ml, the chance of having prostate cancer is more than 50 percent. It is more important to follow PSA levels annually to see if there is an increase compared to the baseline levels.

Some other factors can also elevate PSA levels, such as benign enlargement of the prostate (BPH), inflammation or infection of the prostate, strenuous physical activities like cycling, some urological procedures, and certain medications.

Examining the prostate through a digital rectal examination is also an important measure in diagnosing prostate cancer. This is done as part of an annual physical examination in men over 50. The size of the prostate gland as well as the shape, presence of any nodules or tumors can be assessed through this.

Confirming the diagnosis requires biopsy of the prostate gland. This can be done by cystoscopy (tube through the urethra) or through the rectum.

When should we test for prostate cancer?

For those at average risk, screening for prostate cancer should start at age 50. Those who are at increased risk by having a first-degree relative with a diagnosis of prostate cancer should start undergoing screening at age 45 or even 40 if the risk is higher.

Treatment of Prostate Cancer

Treatment depends on the stage of cancer, age of the patient, and other medical illnesses that may affect life expectancy.

Observation (Watchful waiting)

Prostate cancer often grows very slowly and some men, especially older men with serious health issues, may never need treatment for early-stage prostate cancer. They may be observed with periodic monitoring of PSA and rectal examination.

Surgery

Removing the prostate and surrounding tissues by surgery is one of the common treatments for prostate cancer that is confined to the prostate. This procedure is called radical prostatectomy and can only be done by skilled urologic oncologists with expertise.

Radiation

Radiation to the prostate yields similar results as surgery in early-stage prostate cancer. If surgery cannot be done for any reason or if the patient does not want to do surgery, radiation would be an option.

Hormone therapy

Prostate gland is responsive to the male hormone testosterone. Giving medications that decreases testosterone will decrease the growth of prostate cancer cells. This mode of treatment is called Androgen Deprivation Therapy (ADT). This can be done by an injection given once a month or every 3-to-4-month intervals. Some patients, depending on the stage of cancer, may need these injections even after surgery or radiation.

Chemotherapy

Chemotherapy is used to treat prostate cancer in the later stages, where it has spread to other organs.

After definitive treatment with surgery or radiation, blood PSA levels are checked periodically. If PSA levels increase, more tests should be done to see if cancer has relapsed or spread to other organs.

By regular physical examinations, annual PSA tests and being watchful of any new urinary symptoms, prostate cancer can be diagnosed and treated early; early stage cancer is curable in more than 95% of patients.