

## PROSTATE CANCER

### What is the prostate?

The prostate is small gland weighing about 18-20 g. It is located below the urinary bladder. It completely surrounds the urethra (tube that carries urine from the bladder to outside). Prostate produces major portion of semen.

### What are the causes of prostate cancer?

Till now, the exact cause of prostate cancer has not been found. Prostate cancer occurs when abnormal cells, fueled by male hormones such as testosterone, grow uncontrollably to form tumors. The risk of prostate cancer increases after 50 years, on taking a western style diet high in animal fat & protein.

### Is prostate cancer different from other cancers?

Yes, prostate cancer is different from most other cancers. In a majority of men, it will remain silent, i.e. it will not cause symptoms or progress beyond the prostate gland. Sometimes this cancer can be small, slow growing & presents limited risk to the patient. Only occasionally, does it cause risk to life or health of the man. Unfortunately, we cannot predict the course in an individual patient.

### What are the symptoms of prostate cancer?

In early stages prostate cancer causes no symptoms. Later on, patient may complain of problems with urination such as frequent urination, inability to pass urine, pain / burning while urination, weakened urine flow; blood in the urine or semen; painful ejaculation; dull pain in the lower pelvic area; in late stages patient may complain of general pain in the lower back, hips or upper thighs; loss of appetite and/or weight; and persistent bone pain.

### How is prostate cancer diagnosed?

Currently, digital rectal examination (DRE) and PSA tests

## PROSTATE CANCER—DETECTION

are used for prostate cancer detection. The age at which time screening for prostate cancer should begin is not known with certainty. However, most experts agree that healthy men over the age of 50 should be considered for prostate cancer screening with a DRE and PSA test.

### What is PSA Test?

PSA stands for Prostate Specific Antigen. The test measures the level of PSA, a substance produced only by the prostate. Very little PSA escapes from a healthy prostate into the bloodstream, but certain prostatic conditions can cause larger amounts of PSA to leak into the blood. One possible cause of a high PSA level is benign enlargement of the prostate (BPH), or infection in prostate (Prostatitis). Prostate cancer is another possible cause of an elevated PSA level. It is recommended that men above age of 50 should have their PSA checked annually. Normal PSA value is less than 4 ng/ml. The higher the value of PSA the greater the possibility of prostate cancer.

### If the PSA is high, what is the next step?

If PSA is high, next step is prostate biopsy. Generally, 6 to 14 biopsies will be taken. This is done to improve the ability to detect prostate cancer. The biopsy tissue taken will then be sent for examination. The pathologist will be able to confirm if cancer is present and if so how aggressive is it.

### Are there any precautions to be followed after undergoing Biopsy?

After biopsy patient may notice blood in urine or stools. This will subside in a day or two. The chance of high fever is rare (1%) but when present the patient will need hospitalization & Antibiotic injections.

### What other tests need to be carried out?

Once the diagnosis of prostate cancer is made, certain imaging tests, such as a bone scan, CT scan or MRI, may be needed to assess whether the cancer is still confined to the prostate or has spread elsewhere in the body.

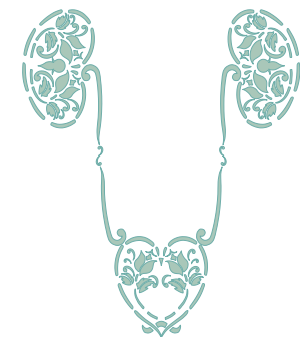
## PROSTATE CANCER—TREATMENT

### Is Prostate cancer treatable?

Prostate cancer generally has good outcome especially in early stages. Patients in whom, it has not spread beyond the prostate can opt for operation or radiotherapy. Both are equally effective. In patients with prostate cancer where it has spread locally outside the prostate, hormonal therapy followed by radiation is the treatment. In patients where it has spread elsewhere in the body, hormonal treatment is the only modality of treatment.

### What are of the side effects of radiation therapy?

The main side effects of radiation are related to the treated area. They are increased urinary frequency; mild burning with urination; weakened urinary stream; bowel irritability including mild diarrhea, gas, and mild irritation of the skin around the rectum and fatigue. Within one or two months following completion of treatment, most men notice that symptoms disappear. If changes in bladder or bowel function persist, they are typically mild. The loss of sexual function is also a relatively common side effect of radiation.



**DR. AMIT BHAT**  
**M. S. (Surg.), M. Ch. (Urology)**  
**CONSULTANT UROLOGIST**