

## Prostate, the men's gland

Supakorn Rojananin, M.D.

Deputy Dean of public relations and special affairs

Faculty of Medicine Siriraj Hospital

If men over 50 don't know about prostate gland and where it is, please take a few minutes to read this article because it might cause some more or less harmful to you when you get older.

The prostate is a sex gland exclusively in men. It is about the size of walnut located surround the neck of the urinary bladder with ducts opening into the prostatic portion of the urethra (the tube in the penis that carries urine from bladder). It secretes fluid (semen) that carries sperm for fertilization. In early puberty, the prostate doubles in size and at around the age of 25, it grows again and continues to grow throughout most of a man's life. Therefore, the continuing enlargement of the prostate may cause a benign condition called "benign prostatic hypertrophy or (BPH). BPH rarely causes symptoms before age 40, but more than half to as many as 90 % will develop symptoms at 60s and over 70 – 80s respectively.

The symptoms of BPH mainly result from the compression effect of enlarged prostate against the urethra causing difficulty in emptying the urine. Interference of urination leads to thickening and irritating bladder wall which begins to contract even when it contains small amount of urine which causes more frequent urination. Symptoms may include; leaking or dribbling of urine, more frequent urination especially at night, urgency to urinate, urine retention, interruption or weak stream of urine. These problems may lead to urinary tract infection and stone and eventually kidney damage.

Cancer of the prostate is also a common and serious health concern especially in Western countries. Even though the incidence in Asia is relatively low, it is increasing recently. As disclosed by **Associate professor, Dr. Sunai Leewansangtong**, a urologist at Department of Surgery, Faculty of Medicine Siriraj Hospital, the prostate cancer was the third most common cancer in men treated at Siriraj Hospital in 2003. Hereditary accounts for only 5 – 10 % of cases whereas; the majority of cases are sporadic. The contributing factors include age, race, diet, weight and environment exposures. 80 % of all prostate cancers are diagnosed in men over 65. Japanese & Chinese men native to their countries have the lowest rates, but those who migrate to U.S., have an increased risk and mortality rate from prostate cancer. High fat diet intake, obesity had an increase risk. Having BPH doesn't seem to increase the chance of developing prostate cancer but coincidental finding is possible. Early prostate cancer may have no symptoms (opposite to BPH) and can only be found with regular prostate check ups including digital rectal examination (DRE) and prostate-specific antigen (PSA) testing. Since the prostate is an insidious organ that we cannot see or touch by ourselves, DRE by physician's finger exam through the rectum can reach and indirectly feel the gland through the wall of the rectum. Hard or lumpy areas in the gland may indicate that cancer is present. PSA is a bio-molecular substance made by the prostate can be detected as a tumor marker from the blood test. It is normal to find small quantities of PSA in the blood and gradually increase in men over age 60. PSA may become elevated in cancer, as well as other conditions such as BPH or prostatitis.

**Dr. Sunai** suggests that, men over 50 (even with no symptoms) should have an annual DRE check-up and PSA testing. Should there be any abnormalities, further investigations should be carried out to determine the cause. BPH is the most common non-cancerous prostate problem. Although it is not cancer, its symptoms may often be similar to those prostate cancers. Some types of imaging studies such as transrectal ultrasound, CT scan, MRI, cystoscopy as well as tissue biopsy of the gland may be needed especially in those cases with suspicious of cancer. Prostatic biopsy is a simple procedure that can be done in an out-patient basis.

In term of treatment, BPH may require treatment with medicine or surgery to relieve symptoms and to protect from kidney damage. The aim of surgery is to remove only the enlarged tissue that is pressing the urethra with the rest of tissue remains intact. Transurethral surgery is a popular procedure for surgeon to remove the gland tissue by inserting the instrument through the urethra without need of external incision. Open surgery is only done in a much enlarged gland.

For prostate cancer, the earlier it is diagnosed, the better chance of cure is possible. Sixty percent of all prostate cancers are discovered while they are still localized with 100% five-year survival after treatment. 68 and 52 % survive beyond 10 and 15 years respectively. Generally, prostate cancer is a progressive disease that is likely to grow and spread over a period of time, unless it is treated. The most common treatment options include surgery, radiation therapy, hormone therapy, chemotherapy and the combination of those. Selection of treatment modality depends on stage and grade of the disease, age, general health and expected life span of the patients. Dr. Sunai says he and his colleague have found more cases with early staged disease during the last 5 years. These patients have a potential to be cured from cancer after treatment. Therefore, please be sure to have prostate screening examinations annually at the appropriate ages.