

## Prostate enlargement

What is the prostate gland and what happens if the prostate enlarges?

What are the symptoms of prostatic enlargement?

Does this affect the quality of life?

Can an enlarged prostate lead to complications?

How is it diagnosed and how is it treated?

What are the complications of the operation and what happens after the operation?

### What is the prostate gland?

The Prostate is a small gland located just below the urinary bladder in males. It fits around the urethra, a tube that serves as a conduit for the passage of urine and semen. The prostate produces a fluid that forms one of the constituents of the semen.

### What happens if the prostate enlarges?

In most men, the prostate enlarges as they get older. More than 50% of men above 60 years of age have a benign (not cancerous) enlargement of the prostate. This is called benign prostatic hyperplasia or BPH for short. As the prostate enlarges it presses on the urethra making it difficult to pass urine.

### What are the symptoms of prostatic enlargement?

The prostate usually grows very slowly and for several years there may be no symptoms. Indeed the symptoms may become quite severe, yet the person may not notice and accept them as normal. The common symptoms are:

- The urine stream may become weak
- The flow starts after a period of waiting - hesitancy
- The person may need to go to the toilet frequently
- He may have to get up several times at night to pass urine
- There may be dribbling of urine or it may come in stops and starts
- Occasionally there may be an urgent, uncontrollable desire to pass urine, sometimes leading to leakage
- If the prostate becomes very large the patient may present with complete blockage, and retention of urine. This may happen so slowly that the patient passes a small quantity at a time while retaining the rest of the urine in the bladder which holds over 500 ml urine all the time – an event called chronic retention.

### Does this affect the quality of life?

Patients who have BPH try and minimize their discomfort by changing their lifestyle. This often happens unknowingly. They restrict intake of fluids so that they need to go to the toilet less frequently. They avoid sports, limit their long journeys or social occasions to avoid embarrassment. Frequent awakenings at night disturb the sleep pattern and cause anxiety. Frequency, urgency and taking time in passing urine all may be quite disturbing.

### Can an enlarged prostate lead to complications?

Several problems may occur if an enlarged prostate is left untreated:

- There may be sudden, complete blockage of urine requiring a tube to be passed to empty the urinary bladder
- The urinary bladder may hold residual urine even after the person is evacuated. This pool of urine can get infected and stones may form in the bladder.
- With the passage of time, the back pressure due to the urinary obstruction can affect the kidney function and lead to renal failure.

## **How is it diagnosed?**

The clinical history gives the doctor several clues about the condition. The doctor may pass a finger into the anus and feel for the size of the prostate through the rectum. Some blood tests may be done which will include prostate -specific antigen (PSA) to exclude a cancerous change in the prostate. The size of the prostate can also be measured using an ultrasound scan. Uroflowmetry is another useful test in which the patient is asked to pass urine into a machine that measures the rate at which the urine is passed, the time taken and the volume of urine passed. These parameters give a good idea about the presence or absence of significant obstruction to urine flow.

## **How is it treated?**

There are several ways of treating prostatic enlargement. The selected modality depends on several factors like the age of the patient, his general health, severity of symptoms and his life style. The decision is made by the patient's own perception of symptoms, measurement of the degree of obstruction and the presence or absence of complications.

### **Medical treatment:**

If the symptoms are minimal, no treatment may be given or medicines may be tried at first. The medicines include *prazosin*, *terazosin*, *tamsulosin* and *finasteride* which help by relaxing the prostatic muscle or by causing its shrinkage. The medicines may need to be given for several weeks or months. Once the medicines are stopped, the symptoms commonly return. Some of the side effects of these medicines include headaches, dizziness, lowering of blood pressure and loss of libido.

### **Surgical treatment:**

This is the favoured method of treatment if the symptoms are significant. It is usually performed using an instrument that is passed up the urethra and the prostate gland is cut out from within. This procedure is called transurethral resection of prostate (TURP) and is the most frequently performed operation for prostatic enlargement, in fact it is the gold standard of surgical treatment. Any other endoscopic operation is either inadequate or is still experimental. Open operation by making a cut in the abdomen is almost never required. The cutting of the prostate gland in the TURP is done by using an electric current. The operation is performed under regional anaesthesia i.e. by numbing the lower part of the body by injecting an anaesthetic agent into the spine. The operation usually lasts 1 hour. Laser prostatectomy is still under development and till date TURP is the surgery of choice.

## **What are the complications of the operation?**

There may be bleeding that may persist for several days. However, blood transfusions are almost never necessary. Urinary infection may happen that can be managed with antibiotics. The urethra or the prostatic area narrows in 2-3% of patients, which is due to catheterization or instrumentation. This requires second operation which is minor in degree. A rare patient (1 out of 1000) may become incontinent. Prostate may re-grow after 10-15 years of surgery.

## **What happens after the operation?**

A tube (catheter) is left through the urethra into the bladder that drains urine for 1-2 days following which it is removed. For a few days after removal of the urine tube there may be burning and difficulty while passing urine. The patient may continue to pass urine frequently and occasionally may be unable to control its passage. These distressing symptoms usually disappear in a few weeks. If they persist, the doctor must be consulted. About 80% of patients benefit greatly from the operation and some improve to a satisfactory level. Only a few may not perceive much improvement in whom there is bladder problem. The chances of prostatic cancer are not minimized by any surgery of prostate done for benign disease. There is no strong reason for postponing or avoiding surgery where it is indicated.