Radical Prostatectomy - A Treatment of Prostate Cancer

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A radical prostatectomy is a procedure to eradicate the prostate gland and several of the tissue around it. It is made to cure prostate cancer. This process might be complete by open surgery or may be done by laparoscopic surgery.

What a Radical Prostatectomy:

Radical Prostatectomy is a surgery related to removal of prostate. It is done to cure the prostate cancer. When the prostate gland is affected by cancerous cells, in early stages, it is recommended to remove the prostate gland and tissues surrounding it. The radical prostatectomy is performed traditionally by open surgery or by laparoscopic surgery through small incisions. But now doctors are performing with the help of robots, such surgeries are called as Robotic Radical Prostatectomy. MPUH is the second hospital in India to use robots in such surgeries.

The prostate is bounded by nerves and structures that are necessary for urination and sexual function, thus care must be taken to diminish wound that can lead to side effects such as incontinence, blood in urine and erectile dysfunction.

Surgeon suggests the radical prostatectomy treatment to the patients when

- If cancer has not spread outside the prostate and
- If the patient is younger rather than older and have a high grade tumor

How Radical Prostatectomy is done

Radical prostatectomy is usually effective in treating prostate cancer that has not spread. This is called early-stage cancer. A radical prostatectomy is carried out by expert surgeons. They take the entire prostate gland with the goal of getting clear of all the cancerous cells. Following surgery, the stage of the cancer can be resolute based on how far it has spread. Along with the prostate gland the surgeon also removes the nearby tissues and the pipes that carry semen (seminal vesicles). They then close the wound. If cancer has spread, advanced cancer may grow even after the prostate has been removed.

Below are the Approaches for the Radical Prostatectomy:
Open Surgery: Depending upon the case, the surgeons make a long scar either in lower belly or in perineum. Thus there are two approaches of open surgery:

- **Radical retro pubic prostatectomy** – When the scar is made in lower belly, it is termed as Retro pubic Approach, where surgeons may remove lymph nodes as well, so as to test in laboratory. The scar is long and deep so as to reach to the prostate gland.
- **Perineal approach**: Here the scar is made in perineum, and the recovery time is shorter than the retro pubic approach.

Laparoscopic Surgery: Several small incisions are made in the lower belly. Surgeons then insert the instrument called laparoscope and camera and then perform the surgery. They remove the prostate gland through other incisions. The recovery period is shorter than the open surgery.

Robotic Radical Prostatectomy: Here the surgeons use robot to reach to the prostate gland. The use of robots is very beneficial because surgeon directly targets the prostate without affecting any other organ. This is advantageous because patient has very less blood loss and surrounding vital organs are spared. This results in faster recovery. Use of robots required skilled doctors to operate.

How the Surgery is Done:

Once the localized cancer is detected after the initial tests, your date of surgery is decided. Depending upon the tumor, doctors may decide which type of surgery is required – Open, Laparoscopic or Robotic. Patient is given local anesthesia. Generally such surgery would last up to 4 hours. Sometime along with the prostate, lymph nodes are also removed so as to check for cancer spreading.

- A urinary catheter is kept in patient’s bladder to drain urine
- After the surgery, patient is kept under observation for few days
- The catheter will be removed after five days
- A routine check-up is required after one month of surgery

Risk Factors:

**Radical Prostatectomy** is one of the major surgeries in men, but it is not as dangerous as surgeries such as heart surgery. There are common risk factors such as

- Allergy to Anesthesia
- Blood loss or infection
- Wound to the rectum
- Erection difficulties

Common Post-Operative Complications:
• **Constipation:** This is very common side effects after any major operation. If anyone feels uncomfortable then the surgeons allow taking 2 senna tablets at. Don’t strain to open your bowels.
• **Incontinence:** Not able to control urination is called Incontinence. The severity to in continence is depending upon how severe the cancer and how much it is spread.
• **Impotence:** Men are not being able to erect their penis is called Impotence or Erectile Dysfunction. It is one of the common problems after such surgery.
• **Blood in the urine:** This is common both before, and after surgery. The catheter is kept in bladder to remove the urine. It is removed after 5 days.
• Damage to the urethra and / or rectum
• Very rarely (in less than 1% of cases) there is injury to the rectum requiring a temporary colostomy.
• Very small risk of death (as with any major surgery).

Because of the use of robotics in such type of surgeries, the risk is lowered to certain extent.

**Advantages of Radical Prostatectomy Surgery**

• The true phase (extent) and rating (aggressiveness) of the cancer can be determined.
• Surgery is made with High Definition 3D vision and 360 Degree angular moment, which enables surgeon to perform surgery with great accuracy.
• If the cancer is narrowed to the prostate, and the whole gland is removed, surgery should be healing.
• Less pain, less scarring, less blood loss to patient
• Faster recovery
• Surgery is made on targeted organ; hence many vital organs are spared with results in fewer complications.
ABOUT “CENTRE FOR ROBOTIC SURGERY”

Center for Robotic Surgery (CRS) is the Super Specialty Urological Hospital. It is an initiative of Muljibhai Patel Urological Hospital (MPUH), popularly known as 'Nadiad Kidney Hospital' or just 'Nadiad Kidney'. We are the first hospital in India devoted entirely to Nephrology and Urology.

MPUH-CRS is started with the vision to provide the best facility with advance technology to fulfill patient’s need of minimal hospital stay and also reduce the morbidity rate. Our motto “Every life deserves the world class care” and, we provide the best treatment with top class technology.

Dr. Mahesh Desai is the Medical Director & Managing Trustee of MPUH - CRS. He is also a Director of JPAC, a world class center of academic excellence for Urology and Nephrology and current president of Endourology Society and immediate past president of Society International d’Urologie (SIU). Dr. Desai received several national and international awards for his services at MPUH.

Center for Robotic Surgery

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