Prostate Cancer: Robotic/laparoscopic assisted radical prostatectomy, possible pelvic lymph node dissection

Radical prostatectomy is a surgery to remove the entire prostate as an option to treat prostate cancer. This includes removal of the seminal vesicles, a portion of the urethra, and does require disconnecting the vas deferens in order to remove the prostate gland. It may be done if preoperative workup suggests that the cancer is confined to the prostate. Often times, a lymph node dissection is performed at the same time of the surgery. Unfortunately no surgery can guarantee cancer cure however the entire removal of the prostate has been demonstrated to be an effective treatment of prostate cancer in many patients.

How the surgery is performed

The surgery is performed through several small incisions in the abdomen (rather than a larger incision typically used for an open approach). This is called laparoscopy. Robotic-assisted laparoscopy is when the robotic Da-Vinci system is utilized to apply the laparoscopic approach and principles. The robotic system helps during the surgery by providing a 3-D view of inside the body and enhances the surgeon's hand movements.
The surgery duration is usually around 4 hours.

During the surgery:

- The surgeon may remove and check the lymph nodes near the prostate. This is to see if cancer has spread (this is a rare occurrence). If the cancer has spread, the surgeon may decide not to remove the prostate.
- The prostate, seminal vesicles, and a portion of urethra will then be removed. The vas deferens will also be disconnected in order for the prostate to be removed.
- Nerve-sparing methods may be used to try to preserve erectile function.
- The surgery duration is usually around 4 hours.

Surgical risks and possible complications

All surgeries have risks. The possible foreseen risks of this surgery include:
-Pain, infection, bleeding, bleeding requiring transfusion, hematuria (blood in the urine), scarring, damage to the bladder, urethra, ureters (blockage requiring kidney drainage tubes or stents - rare), damage to intra-abdominal organs such as the large and small bowel (including rectum), need for temporary colostomy (very rare), damage to intra-abdominal blood vessels and nerves, conversion to an open procedure, hernia development at the incision sites
-trouble attaining or keeping an erection (erectile dysfunction / impotence), dry orgasm (lack of ejaculate/ejaculation)
urinary incontinence (leakage), loss of bladder control, trouble urinating,
-blood clots / embolus from veins into lung (rare), air embolus (air bubbles returning in veins to lung, heart causing death), anastomotic leak requiring prolonged catheter drainage or further procedures, pneumonia (lung infection), ileus (prolonged time for intestines to begin moving food through again. May require a temporary tube placed through nose into stomach to relieve liquid/gas buildup), small bowel obstruction (after surgery, scar tissue can form around intestines causing a blockage. This can occur even years after surgery)
-no guarantee of cancer cure, recurrence of prostate cancer, progression of prostate cancer, need for additional procedures including androgen deprivation therapy and radiation therapy
-aborted procedure (if unable to perform radical prostatectomy due to patient anatomy or if obvious findings of metastatic disease intraoperatively)

The risks of a blood transfusion include:

-Risk of transmission of HIV, hepatitis, and other blood born diseases. All blood in the blood bank is screened for these diseases and there haven't been any reported cases of transmission of these diseases since the 1990s.

-Risk of allergic reactions (fevers, hives, itchiness, damage to lungs, and heart)

Getting ready for your surgery

-Tell your healthcare provider about all medicines you take. This includes herbs and other supplements. It also includes any blood thinners, such as warfarin/coumadin, clopidogrel/plavix, apixaban/eliquis, rivaroxaban/xarelto or aspirin. You will need to stop taking blood thinning medications around 7 days before the surgery. This typically requires checking in with the provider that started you on the medication for a preoperative clearance.

-Don't eat or drink after midnight the night before surgery. The preoperative surgery department will call you and give you more information about this as it gets closer to surgery.

-Smoking cessation - if you smoke, consider discontinuing from the time you decide on surgery. Smoking may help from a lung standpoint before the surgery as well as help with the healing process. Patients who smoke are at an increased risk of poor wound healing and postoperative complications.

-You may start practicing Kegels exercises leading up to the surgery.

What to expect after surgery while in the hospital

Deep breathing - use an incentive spirometer which is a breathing device (given to you in the hospital for you to take home) that helps you to expand your lungs and prevent pneumonia.

Catheter- This is a tube that is inserted via the urethra and into the bladder to drain urine into a bag to allow for close monitoring of a patient's urine output. Typically the foley catheter is placed during the surgery after a patient is asleep and under anesthesia. The foley will drain urine into a drainage bag. You will go home with this temporary catheter. Do not allow anyone to remove this catheter unless they are with the urology service or have discussed with the urology service.

Abdominal drain – this is post-operative surgical drain that may be placed in the abdomen during the surgery while a patient is asleep and under anesthesia. The drain removes fluid from the recently operated site in the abdomen and the output is recorded and monitored. Sometimes the fluid in the drain is sent to the lab for a test prior to removal to check if the drain is safe to be removed. The removal of the drain is awake and at the bedside usually just prior to discharge (going home).

If you have to go home with the abdominal surgical drain, we will provide additional instructions to you on how to maintain prior to discharge.

Most patients on average go home about 1-2 days after surgery.

Recovering at home

Catheter -You will have a catheter (also known as a Foley catheter) in place to drain urine from your bladder to a drainage bag. While in the hospital the foley tube will be connected to a large drainage bag. Before you go home from the hospital, the nursing staff will teach you how to maintain the foley catheter. There are two types of bags that may be used - either a large drainage bag or a small leg bag that is secured to the thigh with straps. Empty the bag frequently to prevent the bag from filling up, which may cause urine to back up into the bladder. You do not have to record the output. The urine may be bloody (pink or red) or cloudy. This can be normal after surgery. What is most important is that the urine is draining through the tube into the bag. You will go home with the catheter. Do not drive while the catheter is in place. Patients may experience bladder spasms while the catheter is in place. This feels like the urge to urinate

and can often present as discomfort in the lower abdomen over the bladder region and some urine may leak/drain around the foley tube when the discomfort occurs. If the catheter stops draining urine into the bag and your bladder feels full, please present to the nearest emergency room or the VA emergency room if possible to have it flushed. Do not allow anyone to remove this catheter unless they are with the urology service or have discussed with the urology service.

Activity restrictions - do not lift anything greater than 10 pounds for 6 weeks after surgery. You may walk around, go up/down steps, get in/out of cars and resume light activity after surgery. Avoid strenuous exercise for 6 weeks. Avoid mowing the lawn or using a heavy vacuum cleaner. It is not recommended to drive while taking narcotic pain medications or if you have a foley catheter in place.

Incisions - your incisions will be closed with absorbable stitches and covered with glue known as Dermabond. This glue will slowly peel off usually around 1-2 weeks after surgery. You may shower after surgery. Avoid soaking the incisions underwater in a tub for about 1 week. If you have an open incision (typically the incision where the drain was removed if you had a drain) you may keep that covered with gauze and tape while you shower and then after you are done with the regular shower, you can remove the gauze and sponge bathe the skin around the open incision. In a few days when the incision is closed and the drainage is minimal, you can transition to a band-aid.

Hydration - drink 8-10 glasses of water/fluids daily to prevent dehydration.

Walk - this will help to get your bowels moving, prevent pneumonia, and blood clots from forming. You can walk as early as the same day of the surgery in the evening with appropriate assistance.

Food/diet - your appetite may not return to normal for a few days or even up to a week after surgery. Eat small portions (you might require more frequent small portions rather than the standard 3 meals/day) and avoid heavy and high fat foods. Drink plenty of water/fluids to keep yourself hydrated.

Bloating - during your surgery, the abdominal cavity is filled with gas in order to perform the surgery. Your body will absorb this gas over the course of a few days. Pain medications and anesthesia medicines can also contribute to bloating.

Constipation – it is common to be constipated after the surgery. Try to avoid straining. The best things you can do to help with return of bowel movements is to ambulate/walk and drink plenty of water/fluids. All narcotic pain medications are associated with contributing to constipation so try to take as sparingly as possible. If it is around 4-5 days after surgery and you still have not had a return of bowel movements, you can go to the local pharmacy and purchase over the counter milk of magnesia or miralax to assist with bowel movements.

Medications - If you take blood thinning medications, we will discuss with you based off of the clearances that were obtained prior to surgery from the provider/specialty who originally prescribed the blood thinners as to when to restart these medications after surgery.

Kegel muscle exercises – as soon as the catheter is removed, you can start kegel muscle exercises. You can look up online videos of pelvic floor physical therapists for male stress incontinence to assist you. A referral can also be made at your followup visit to a pelvic floor physical therapist at the VA to teach you the exercises to help you improve and regain your continence (ability to hold urine).

Follow-up care

The catheter and surgical drain (if you are discharged home with it) will be removed at a follow-up visit. A cystogram might be recommended in some cases to be performed on the same day as the followup visit in clinic to ensure that the anastomosis has healed. This is often around 1 to 2 weeks after surgery. Bladder control often takes several months to return.

When to call your healthcare provider

Call your healthcare provider right away if you have any of the following:

- Fever of 100.4°F (38°C) or higher, or as directed by your healthcare provider, chills
- Foley catheter that falls out or stops draining
- Trouble urinating after the catheter has been removed
- Redness or pain in the incision that gets worse
- Swelling of your leg or ankle
- Redness, swelling, warmth, pus, bleeding, or drainage at your incision site
- Trouble breathing
- Hives or rash
- Nausea and vomiting