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# Post op instructions for Laparoscopic Robotic Pyeloplasty

# **Pre-operative Ureteral Stenting**

**Potential Risks and Complications**

As with any major surgery, complications, although rare, may occur with laparoscopic pyeloplasty. Potential risks and complications with this operation include but are not limited to the following:

* **Bleeding:** Blood loss during this procedure is typically less than 100 cc with the rare need for a blood transfusion (<2% of patients). If you are interested in autologous blood transfusion (donating your own blood) prior to your surgery, you must make your surgeon aware.
* **Infection:** Although patients are given broad spectrum intravenous antibiotics immediately prior to surgery, infections of the urinary tract and skin incisions may still occur but are rare. If you develop any signs or symptoms of infection after the surgery (fever, drainage from or redness around your incisions, urinary frequency/discomfort, pain) please contact us at once.
* **Recurrence of Kidney Obstruction:** Although very effective, robotic pyeloplasty is associated with a < 5-10% risk of recurrent obstruction. If the obstruction recurs, often an endoscopic procedure using a laser may be needed to “cut” the scar tissue from within the ureter. For patients with obstruction associated with chronic pain, there are some studies that suggest the pain may never relent, even when the kidney is no longer obstructed. For these rare circumstances, conservative measures such as chronic pain medications or stenting may not work, and occasionally removal of the kidney (i.e. nephrectomy) is required.
* **Persistent Pain:** Some patients who undergo robotic pyeloplasty will continue to have chronic kidney pain despite resolution of the obstruction.
* **Urine Leak:** Occasionally, the anastomosis may leak urine from 24 hours to several weeks after surgery. If a urine leak occurs, the drain will stay in place until it heals, and usually patients will require a ureteral stent and foley catheter (bladder catheter) to allow for complete decompression of the urinary tract to encourage spontaneous closure of the leak.
* **Adjacent:** Although uncommon, adjacent organs and tissues may be injured as a result of your surgery. This includes the colon, bowel, vascular structures, nerves, muscles, spleen, liver, pancreas and gallbladder. If injury to your lung cavity occurs, a small chest tube may be required to evacuate air, blood, and fluid from around your lung, thus allowing your lung to expand and work properly.  On rare occasions, further surgery may be required to address unexpected injuries to adjacent organs.
* **Incisional Hernia:** Because of the small laparoscopic incisions, hernias at these sites can rarely develop. In addition, larger incisions are closed carefully prior to the completion of your surgery to minimize the risk of hernias.
* **Complete Removal of Kidney:** In very rare cases, circumstances may arise that may lead your surgeon to remove the entire kidney at the time of surgery. These include excessive bleeding, or a tumor that appears within the kidney that was not appreciated on preoperative imaging tests. In such cases, the kidney can generally be removed safely by robotic or laparoscopic surgery and often does not require conversion to open surgery.
* **Conversion to Open Surgery:** In the rare event of complications or due to difficulty in dissecting by means of robotic surgery, conversion to open surgery is sometimes required. This could result in a larger standard open incision and possibly a longer recuperation period.

**What to Expect After Surgery**

Immediately after the surgery you will be taken to the recovery room then transferred to your hospital room once you are fully awake and alert.

* **Postoperative Pain:** Although most patients in the first few days after surgery experience mild pain at their incision sites, this is generally well controlled by use of intravenous pain medication, patient-controlled anesthesia pump, or oral pain medication provided by your nurse. You may experience some minor transient shoulder pain (1-2 days) related to the carbon dioxide gas used to inflate your abdomen during the laparoscopic surgery.
* **Nausea:** Nausea is common following any surgery especially related to general anesthesia. This is usually transient and controlled by medication which can be administered on an as needed basis by your nurse.
* **Urinary Catheter:** A urinary catheter (also called foley catheter) is placed to drain your bladder at the time of surgery while you are asleep. This is in efforts to monitor your urine output over the first day or so following surgery. This is generally removed by your nurse once you are walking comfortably. It is not uncommon to have blood-tinged urine for a few days after your surgery while your catheter is in place.
* **Flank Drain:** A small clear tube or drain will be placed during surgery exiting out of the side of your flank. The drain output will appear blood tinged but should be minimal. The drain primarily serves to identify any excessive bleeding or a urine leak from the renal pelvis-ureter anastomosis site. The drain is typically removed on the day you are discharged from the hospital if the output remains low.
* **Ureteral Stent:** For all pyeloplasties, a small plastic, flexible tube called a ureteral stent will be placed. The stent serves to facilitate drainage of urine out of the kidney and down to the bladder rather than out of the anastomosis site.  Approximately 4 weeks after surgery, the stent will be removed in the office by your surgeon.
* **Diet:** Your diet will be advanced slowly following surgery from liquids to solids as tolerated. It is often the case that your appetite will be poor for up to a week  
  following surgery. In addition, your intestinal function is often sluggish due to the effects of surgery and general anesthesia. It is for these two reasons that we recommend taking only small amounts of liquids by mouth at any one time until you begin to pass flatus and your appetite returns. In the meantime, your intravenous catheter will provide the necessary hydration to your body as you oral intake improves.
* **Fatigue:** Fatigue is quite common following surgery and should subside in a few weeks following surgery.
* **Incentive Spirometry:** You will be expected to do some very simple breathing exercises to help prevent respiratory infections through using an incentive spirometry device (these exercises will be explained to you by the nursing staff during your hospital stay). Coughing and deep breathing is an important part of your recuperation and helps prevent pneumonia and other pulmonary complications.
* **Ambulation:** On the evening of surgery it is very important to get out of bed and begin walking with the supervision of your nurse or family member to help prevent blood clots from forming in your legs. You can also expect to have SCD’s (sequential compression devices) wrapped around your lower legs and calf area to prevent blood clots called deep vein thrombosis from forming in your legs. In the days that follow surgery, patients are advised to walk at least 4-6 separate times a day in the hallways. This serves to further reduce the change of deep vein thrombosis and speed the return of bowel function.
* **Constipation/Gas Cramps:** You may experience sluggish bowels for several days following surgery as a result of the anesthesia. Suppositories and stool softeners are usually given to help with this problem. Taking a teaspoon of mineral oil daily at home will also help to prevent constipation. Narcotic pain medication can also cause constipation and therefore patients are encouraged to discontinue any narcotic pain medication as soon after surgery as tolerated.
* **Hospital Stay:** The length of hospital stay following robotic pyeloplasty is generally 1 day.

**What to Expect After Discharge from the Hospital**

* **Pain Control:** For the majority of patients, one to two days of oral narcotic pain medication may be necessary after which Extra Strength Tylenol is usually sufficient to manage their pain.  Again, narcotics should be minimized to avoid constipation and over sedation.
* **Showering:** Patients can shower immediately upon discharge from the hospital allowing their incisions to get wet. Once out of the shower, pad your incision sites dry and avoid any heavy creams or lotions. Tub baths or hot tubs in the first 2 weeks are discouraged as this will allow for prolonged soaking of your incisions and increase the risk of infection. You may shower after returning home from the hospital. Your wound sites can get wet, but must be patted dry immediately after showering. Your surgeon may elect to place surgical “glue” on your skin after closing. This acts as a barrier to infection and will fall off over time. Alternatively, adhesive tape, called Steri-strips, may be placed across your incisions. These can be removed one week following surgery. The sutures underneath the skin will dissolve in 4-6 weeks.
* **Activity:** Walking 4-6 times a day for the first two weeks after surgery on a level surface is strongly encouraged as prolong sitting or lying can increase your risk of pneumonia and deep vein thrombosis. It is permissible to climb stairs. No heavy lifting or exertion for up to 4 weeks following surgery.  Patients may begin driving once they are off of narcotic pain medication and have full range of motion at their waist. Most patients can return to full activity including work on an average 3-4 weeks after surgery.
* **Diet:** Patients may resume a regular diet as tolerated. One sign that alerts a patient to when a regular diet can be attempted is when the patient begins to pass flatus
* **Follow-up Appointment:** Patients should make a follow-up appointment with their surgeon. Your surgeon will let you know the timing and schedule of clinic visits following surgery.
* **Pathology Results:** The pathology results from your surgery are usually available in one week following surgery. Your results will be discussed with you either by phone or directly in the office during a follow-up clinic appointment.