**Introduction:**

Pyeloplasty is the most effective treatment for ureteropelvic junction obstruction (UPJO).

Ordinarily, urine produced in the kidney travels to the renal pelvis and then down the ureter to the bladder. UPJO is a blockage between the renal pelvis and ureter. It can be caused by a blood vessel traveling in front of the ureter causing compression, or by a narrowing inside the ureter (a stricture). The condition can present at any age but often becomes symptomatic in young adults, resulting in flank pain, kidney stones, kidney infections, or decline in kidney function.

Pyeloplasty involves surgical repair of UPJO. If the obstruction is caused by a crossing vessel, the ureter is cut, brought in front of the vessel, and re-connected. If the obstruction is caused by a narrowing in the ureter (a stricture), the narrow segment is removed. A ureteric stent (a long thin tube extending from the kidney to the bladder) is placed to allow the ureter to heal properly.

We usually perform laparoscopic pyeloplasty, which is done through several small incisions measuring up to 1 cm. It is rare to require a large incision.

**Side effects and potential risks:**

It is common to have some blood in the urine and bladder irritation as a result of the ureteric stent. Patients may have some discomfort in their kidney when urinating, as the stent allows urine to travel up to the kidney when the bladder contracts. Postoperative pain is usually quite mild and well controlled with pain medication.

Serious complications are rare following laparoscopic pyeloplasty and include leakage of urine from the kidney, bleeding, removal of the kidney during surgery to deal with major bleeding, injury to other organs, and future recurrence of UPJO due to excessive scar tissue formation.

**Discharge instructions:**

Patients are typically discharged after 1-2 nights in the hospital. You are given a prescription painkiller to take as needed. You should refrain from strenuous activity/exercise for 6 weeks to prevent abdominal hernias. Patients without strenuous jobs can often return to work after 3-4 weeks. You can shower immediately upon discharge but should avoid soaking in baths, tubs, and pools for 4 weeks.

You will return to hospital several weeks after surgery to have your stent removed. Cystoscopy is performed and the stent is removed from the bladder. This procedure takes only a few minutes and is done with you awake with a local anesthetic (freezing jelly in the urethra). Patients usually describe the procedure as uncomfortable but not painful.

If you were instructed to hold blood thinners for the procedure, you can resume these once your urine has been clear for 2 consecutive days. You do not need to hold blood thinners for the stent removal.