

VE13 Robot-assisted laparoscopic ureteroureterostomy for injury of an complete ectopic duplicated ureter following robotic radical prostatectomy

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Introduction & Objectives: Ureteral duplication is the most common anomaly of the urinary tract, affecting up to 3% of the population. Complete ureteral duplication occurs in approximately 0.75% of the population and is more common in females. The most common abnormality associated with ureteral duplication is vesicoureteral reflux into the lower pole. The upper pole ureter is also associated with ureteral obstruction. Ureteral injury during Robotic-assisted radical prostatectomy (RARP) is an uncommon complication with recent reports of a 0.3% incidence. We report the feasibility and the safety of a robot-assisted laparoscopic ipsilateral ureteroureterostomy in a patient who had previously undergone a RARP and was found postoperatively to have complete right sided ureteral duplication with apparent injury to the distal ectopic ureter.

Materials & Methods: A 71-year-old man with PSA 11 ng / mL, PIRADS V lesion on the left side of the prostate and diagnosed with gleason 3 + 4 prostate cancer underwent RARP. After discharge, on the postoperative day (POD) 7, the patient developed abdominal pain and went to the hospital. CT scan showed pelvic collection and complete duplication of the right pyelocaliceal system with dilatation and obstruction of the upper segment. Pelvic collection was drained and a nephrostomy tube was placed on the upper component of the duplicated system. On POD 17 the patient was discharged with a nephrostomy tube and without an abdominal drain. On POD 47 pyelography by nephrostomy showed that the upper system remained obstructed. Robotic Assisted ureteroureterostomy anastomosis was planned and performed on the POD 68. The procedure was performed using a transperitoneal approach. We use 4 robotic ports and 1 auxiliary 12 mm trocar in the standard conformation for kidney surgeries. We identified the two ureters. The proximal end of the ectopic ureter was spatulated and a longitudinal ureterotomy was created in the recipient ureter. The diameter of the ureters was similar. An end-to-side anastomosis with continuous suture with 5-0 monocryl. JJ catheter was placed with the proximal segment at the upper pole.

Results: The operation was performed successfully and without complications. Total operating room time was 160 min. Robot time was 110 min. Estimated blood loss was 50 ml. The patient was discharged at POD 2 and we planned to remove the JJ stent in 4 weeks.

Conclusions: Robot-assisted laparoscopic ipsilateral ureteroureterostomy is feasible and safe for the treatment of ureteral injury in a complete duplicated system.