AB008. Robotic ureterocalycostomy for complex pelviureteric junction obstruction

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Background: Pelviureteric junction obstruction (PUJO) can manifest with pain, urinary obstruction, stone formation or urinary sepsis. Pyeloplasty is the mainstay of surgical management. Ureterocalycostomy has traditionally been preserved for patients who fail primary pyeloplasty. It is also indicated in patients who have an intrarenal pelvis or have iatrogenic proximal ureteric strictures. We present our initial experience of robotic ureterocalycostomy.

Methods: A 50-year-old female presented with left flank pain. Subsequent cross-sectional imaging demonstrated an intra-renal PUJO with associated lower pole stone formation. She was deemed not suitable for pyeloplasty. The Da Vinci Xi system was used with the patient placed in the lateral position with the table in flexion and slight Trendelenburg tilt. The ureter was identified and mobilised up to the kidney. The ureter was divided at the pelviureteric junction (PUJ) and the proximal stump ligated. The infundibulum of the lower pole calyx was exposed and the stone fragments extracted. The ureter was spatulated and anastomosed to the lower pole collecting system over a JJ stent. An abdominal drain was left in situ.

Results: Operative time was 140 min and estimated blood loss 50 mL. There were no post-operative complications. The abdominal drain was removed day one post operatively. The JJ stent was removed after 6 weeks. Computerized tomography (CT) urography at 3 months demonstrated excellent continuity with no evidence of hydronephrosis or further stone formation. The patient reports resolution of her pain.

Conclusions: Robotic ureterocalycostomy is a safe, feasible and effective intervention for complex pelviureteric junction reconstruction.

Keywords: Ureterocalycostomy; reconstruction; pelviureteric junction; ureter

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