

Ileal Ureter Replacement for Complex Ureteral Reconstruction Has a High Success Rate at 3 Year Follow Up

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INTRODUCTION AND OBJECTIVE: Complex or lengthy ureteral strictures may require ileal ureter interposition, which remains an important option for ureteral reconstruction. Reported long term success rate is 75-85%. We report on our 16 year institutional experience with ileal ureter interposition.^{U.S. PAT. & TM. OFF. OF PAT. & TRADEMARKS}**METHODS:** Retrospective review of a single institution's ureteral reconstruction database was performed. Three urologic surgeons performed all surgeries. Unilateral replacements utilized ureteral interposition when possible. Bilateral ileal ureters were performed using the "reverse 7" approach. Preoperative patient demographics, ureteral stricture characteristics, intraoperative variables, complications, and secondary procedures were recorded. Success rate was defined as no need for further intervention.

RESULTS: Between 2003 and 2019, 188 ureteral reconstructions were performed, of which 46 required ileal ureter interposition. Of these 46 patients, 10 required bilateral reconstruction. Average age at the time of surgery was 53 years, and 20 (44%) of the cohort were male. The average stricture length was 9.1 cm. Stricture etiology included iatrogenic causes (n=24, 52%), radiation (n=12; 26%), vascular disease (n=3; 7%), idiopathic retroperitoneal fibrosis (n=3; 7%), and other causes including congenital and trauma (n=4; 9%). Half (n=23) of the cohort received prior intervention for the strictures, and all required prior stent or nephrostomy tube. Forty-three surgeries were performed by open abdominal approach and 3 were performed robotically. The average length of operation was 412 minutes, blood loss=417 mLs, LOS=10 days. Although 23 (50%) patients had a complication, with only 11 (24%) patients experiencing a major (Clavien Dindo \geq 3a) complication. At a mean follow up of 3.3 years, the overall success rate was 83%, with only 17% (n=8) patients requiring subsequent procedures. Three of the 8 patients required a nephrectomy due to persistent UTIs and pain, while the remaining 5 underwent successful ileal ureteral revision.

CONCLUSIONS: In our long-term follow up of over 3 years, ileal ureter interposition is a highly successful option for complex ureteral strictures in properly selected patients.

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