



## Robotic ureteroplasty with buccal mucosa graft for proximal ureteric stricture – local centre experience

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**Objective:** Proximal ureteric stricture is one of the many challenging problems urologists faces. We aim to evaluate the results of buccal mucosa graft (BMG) ureteroplasty at our institution.

**Patients & Methods:** All robotic-assisted laparoscopic ureteroplasties with BMG performed at the Princess Margaret Hospital, Hong Kong, between December 2020 and July 2022 were reviewed. This review included patients with ureteric strictures of various etiologies and stricture lengths. Treatment success was defined as no stricture recurrence on follow-up retrograde pyelogram at 8 weeks. Collected data consisted of patients' demographics, previous interventions, early and intermediate outcomes.

**Results:** 5 patients (median age 57 years) were included in this case series. In brief, in our transperitoneal 3-port robotic approach, we performed a longitudinal stricturotomy, removal of scar tissue and BMG onlay grafting. The ureter would then be wrapped by retroperitoneal fat. 3 patients had previously failed ureteral interventions. Pre-operatively 4 had ureteral stents and 1 was on nephrostomy tube. The median stricture length was 2.0 centimeters. Median operative time was 273 minutes, estimated blood loss was 150 milliliters, and length of stay was 8 days. 4 patients achieved treatment success at a median follow-up of 14 months. There were no intra-operative complications. Anastomotic leakage and donor site bleeding were observed in the remaining patient (Clavien-Dindo III).

**Conclusion:** Buccal mucosa graft ureteroplasty is suitable in appropriately selected patients with proximal ureteral strictures. Robotic surgical approaches have made this technique promising. Long-term outcomes are eagerly awaited.

Case	Age (y)	Smoker	Stricture site	Stricture length (cm)	Prior intervention	Pre-op drainage	Etiology	Surgical approach	Technique	Wrapping	ICG use	EBL (ml)	OT time (min)	LOS (days)	Outcome
1	57	N	Proximal	0.5	Laser stricturotomy	Stent	Stone	Robotic	Onlay	Retroperitoneal fat	Y	250	273	5	No obstruction
2	65	N	Proximal	2	N	Stent	Stone	Robotic	Onlay	Retroperitoneal fat	Y	300	280	5	No obstruction
3	39	Y	Proximal	2	Balloon dilatation	Stent	Ketamine	Robotic	Onlay	Retroperitoneal fat	N	50	263	30	Anastomotic leak Donor site bleeding
4	52	N	Proximal	1.5	N	PCN	Stone	Robotic	Onlay	Retroperitoneal fat	Y	150	322	8	No obstruction
5	62	N	Proximal	3	Laser stricturotomy	Stent	Stone	Robotic	Onlay	Retroperitoneal fat	N	150	239	8	No obstruction

