

26 First experience of ureteroplasty with buccal mucosa graft (BMG) onlay technique in long segment ureteral stricture after failed pyeloplasty

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Introduction & Objectives: Ureteral stricture after previous pyeloplasty is a challenging condition to treat. Several approaches including endoscopic laser incision and anastomotic ureteroplasty are available to solve this condition. Unfortunately these are technically limited in patients with long ureteral strictures. It is always problematic to treat patients with a recurrent ureteral stricture after a previously failed reconstruction. According to literature buccal mucosa graft (BMG) ureteroplasty is well suited for ureteral reconstruction as it allows for minimal disruption of the delicate ureteral blood supply and facilitates a tension-free anastomosis. We present a single case experience of BMG onlay ureteroplasty after failed laparoscopic pyeloplasty and laser endopyelotomy.

Materials & Methods: 61 year old lady suffered left flank pain. She admitted our hospital in August 2016. After investigation (CT scan, dynamic renal scintigraphy, urine culture and other regular investigations) left hydronephrotic kidney due to pyeloureteric stricture was found. No additional renal arteries, renal stones or infections were stated, renal function and creatinine level were normal. In October 2016 laparoscopic dismembered pyeloplasty was performed. Ureteral stent kept in ureter for 4 weeks. In February 2018 this lady returned to us with recurrent left flank pain and residual left hydronephrosis. CT stated 34mm long upper ureteral stricture just below pyeloureteric junction. In August 2018 retrograde ureteropyeloscopy and laser endopyelolithotomy was performed, ureteral stent was kept for 5 weeks in place. Because the ureteral stricture occurred again in 3 months, in 2018.10.29 repeated ureteroplasty was performed. Having experience in urethroplasties with buccal mucosa grafts, we have decided to use this technique in described case. 5cm segment upper ureteroplasty with buccal mucosa onlay graft was performed in open approach. Ureteral stent was removed in 4 weeks after surgery.

Results: 6 months follow-up after buccal mucosal graft ureteroplasty shows promising results. Postoperatively the function of left kidney in dynamic renal scintigraphy significantly improved, hydronephrosis decreased. What is most important – left flank pain has disappeared. Patient satisfaction rate is high, she returned to regular life.

Conclusions: Buccal mucosa graft (BMG) ureteroplasty is an alternative option for ureteral stricture after previous ureteroplasties. This method is suitable for long segment ureteral strictures and allows preserving ureteral blood supply.