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THE RESULTS OF TREATMENT OF PANURETHRAL STRICTURE WITH ONE STAGE BUCCAL MUCOSA GRAFT URETHROPLASTY

Hypothesis / aims of study
The aim of this study is to show results of one stage buccal mucosa graft (BMG) urethroplasty for the treatment of panurethral strictures.

Study design, materials and methods
Between January 2015 and January 2017 ten patients who underwent one stage buccal mucosa graft urethroplasty for panurethral strictures were included in this study. All of patients were performed one stage double buccal mucosal graft urethroplasty with one side dissection of the urethra which was described by Kulkarni. Urethral catheter was removed 3 weeks after surgery. Patients' age, etiology of stricture, comorbidity, previous treatments, concomitant meatal stenosis, postoperative maximal flow rate (Q max), pre and post operative International Index of Erectile Function (IIEF-5) scores, per and postoperative complications and QOL questionnaire scores were noted.

Results
The results were presented in Table-1.

Patient number	Age (year)	Etiology	Stricture Length (cm)	Previous number of urethral interventions	Postop. Max. flow rate (ml/min)	Concomitant meatal stenosis	Comorbidity	Complications
1	61	TUR-P	13	2	17,5	+	CAD	
2	68	TUR-BT	13	2	27,5	-	HT	Oral numbness
3	52	TUR-P	10	5	24	-	DM TYPE 2	
4	40	Idiopathic	13	2	33,4	+	-	
5	43	Urethral catheterization	16	4	28,6	-	-	
6	75	TUR-P	14	6	30,9	-	CAD	Incontinence
7	45	Urethral catheterization	15	5	27,1	+	-	Chordee, ED
8	31	Urethral catheterization	13	3	12,1	+	-	Recurrent stricture, ED
9	35	Urethral catheterization	16	4	38,7	+	-	Chordee
10	56	Idiopathic	11	4	36,8	-	-	

Interpretation of results
Panurethral stricture involves the full length of the urethra from meatus until the most proximal bulb. The incidence of panurethral strictures is increasing. The etiology of panurethral strictures may vary in industrialized and developing countries (1) . In developed countries, most urethral strictures in general have iatrogenic or idiopathic origin (2). Iatrogenic causes include urethral catheterization, cystourethroscopy, transurethral resection, and previous urethral surgeries. Other causes include idiopathic, trauma, infection/inflammation, and lichen sclerosus. In the developing countries, the most common cause of panurethral stricture is genital lichen sclerosus (3). In our study the etiology of strictures were transurethral resection in 4 (%40) patients, urethral catheterization in 4 (%40) patients and idiopathic in 2 (%20) patients. The mean age was 50 (31-75). In the Kulkarni technique, the whole anterior urethra is repaired by a single perineal incision, single technique, and single substitute material. In a retrospective study including 117 patients with panurethral stricture disease treated mean stricture length was 14 cm and the overall success rate was 83.7% (3). In our study we found mean stricture length 13.6 cm and %90 success rate. Most recurrent strictures occurred at the proximal anastomotic site and none of these was a full-length recurrence (3). In our study recurrent stricture occurred in one (%10) patient and stricture site was on the proximal anastomotic site. Recurrent stricture was managed successful with direct visual urethrotomy. The major advantage of this technique is that it is minimally invasive and performed in one stage. It also avoids the psychological trauma of 2 (or more) operations and the need of living for 6 months with bifid scrotum after staged procedures (3). In our study patients had high satisfaction rate and all of the complications were minor complications. In our study erectile function deterioration occurred in 2 (%20) patients, chordee occurred in 2 (%20) patients, oral numbness occurred in 1 (%10) patient and incontinence occurred in 1 (%10) patient. Major complications were not observed.

Concluding message
One-stage repairs with BMG provide successful treatment for patients who have long-segment and panurethral stricture disease. Although this procedure has some minor complications, patient satisfaction is high.

References
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