Impact of Prior Urethral Manipulation on Outcome of Anastomotic Urethroplasty for Post-Traumatic Urethral Strictures

Introduction and Objective: To determine the impact of earlier urethral interventions on the outcomes of anastomotic urethroplasty in post-traumatic urethral strictures.
Materials and Methods: From Jan 2008 to Feb. 2010, a total of 42 patients with post-traumatic posterior urethral stricture underwent anastomotic urethroplasty. Eighteen patients had already undergone urethral intervention in the form of urethrotomy (5), endoscopic realignment (7), or open urethroplasty (6). Success was defined as no obstructive urinary symptoms, maximum urine flow rate > or = 15 mL/s, normal urethral imaging and/or urethroscopy, and no need of any intervention in the follow-up period. Patients who met the above objective criteria after needing 1 urethrotomy following urethroplasty were defined to have satisfactory outcome and were included in the satisfactory result rate along with patients who had a successful outcome. Results were analyzed using unpaired t test, chi-square test, binary logistic regression, Kaplan-Meier curves, and log rank test.
Results: Previous interventions in the form of endoscopic realignment or urethroplasty have significant adverse effects on the success rate of subsequent anastomotic urethroplasty for post-traumatic posterior urethral strictures ($P < .05$). Previous intervention in the form of visual internal urethrotomies (up to 2 times) did not affect the outcome of subsequent anastomotic urethroplasty. Length of stricture and age of patient did not predict the outcome in traumatic posterior urethral strictures in logistic regression analysis.
Conclusions: Previous failed railroading or urethroplasty significantly decrease the success of subsequent anastomotic urethroplasty. Hence, a primary realignment or urethroplasty should be avoided in suboptimal conditions and the cases of post-traumatic urethral stricture should be referred to centers with such expertise.