Artificial Urinary Sphincter AMS 800 after Urethroplasty

Introduction and Objectives: The artificial urinary sphincter AMS 800 has proved to be successful for control of stress urinary incontinence. To our knowledge results of artificial urinary sphincter in patients with urinary stress incontinence after urethroplasty have not previously reported. We present our experience in this group of patients.

Material and Methods: We retrospectively reviewed the medical records and operative reports of 22 male patients who underwent implantation of artificial urinary sphincter after urethroplasty from 2006 to 2011. In our institute we select the site and number of the placed cuffs individually according to urethral state, cause and location of the previous stricture. All patients were operated by one surgeon. Complication rate was the endpoint of our study.

Results: Mean age of all patients was 56 years (Range 38-78 years). Stricture was located in the membranous urethra in 13 cases (59.1%), in the bulbar urethra in 8 cases (36.1%) and in bulbo-penile urethra in 1 case (4.5%). Mean stricture length was 2.9 cm (range 1-10 cm). End-to-end urethroplasty was done in 12 patients (54.5%), buccal mucosal graft urethroplasty in 9 patients (40.9%) and skin graft urethroplasty in 1 patient (4.5%). Twelve patients (54.5%) received double-cuff in the region of bulbar urethra, 5 patients (22.7%) transcorporal cuff placement technique, 4 patients (18.2%) membranous single cuff and in 1 case (4.5%) bladder neck cuff placement. Mean follow-up was 20.6 months (Range 3-45 months). During follow up urethral erosion at the cuff site occurred in 4 Patients (18.2%), failure due to atrophy at the cuff site in 2 patients (9.1%) and mechanical failure in one case (4.5%). No cases of device infection reported. Revision was done in 7 cases (31.8%). Recurrent urethral stricture occurred in 3 patients (13.6%). There was 77.3% of the patients who needed only 0-1 security pad daily; 22.7% needed more than one daily. Eighteen patients (81.8%) reported satisfactory continence and significant improvement of the life quality.

Conclusions: Our study suggests that implantation of artificial urinary sphincter AMS800 in patients with significant stress incontinence and previous history of urethroplasty is possible and can provide satisfactory continence.

Membranaus	**13**	**59.1%**
Bulbar	**8**	**36.1%**
Bulbo-penile	**1**	**4.5%**

End to End	**12**	**54.5%**
Buccal mucosal graft	**9**	**40.9%**
Skin graft	**1**	**4.5%**

Distal doppelcuff	**12**	**54.5%**
Transcorporal	**5**	**22.7%**
Membranous	**4**	**18.2%**
Bladder neck	**1**	**4.5%**

77.3% of the patients needed only 0-1 security pad daily. 22.7% needed more than one daily.

Urethral erosion at the cuff site	4 Patients (18.2%)
Failure due to atrophy at the cuff site	2 patients (9.1%)
Mechanical failure	1 case (4.5%)
Revision	7 cases (31.8%).
Recurrent urethral stricture	3 patients (13.6%)
Infection	-

18 patients (81.8%) reported satisfactory continence and significant improvement of the life quality.