

LONG-TERM SUCCESS RATE OF SUBURETHRAL SLING PROCEDURE IN STRESS URINARY INCONTINENCE PATIENTS WITH DIFFERENT BLADDER FUNCTION

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Introduction

The female stress urinary incontinence (SUI) is mainly due to **intrinsic sphincter deficiency**. Suburethral sling is established to provide a hammock effect on the **hypermobility of urethra**. We intend to investigate the long-term success rate of suburethral sling in stress urinary incontinence (SUI) patients with different bladder function such as **stable bladder, detrusor overactivity (DO) and detrusor underactivity (DU)**.

Methods

A total of 403 female SUI patients from October 1989 till November 2014, who undergone suburethral sling procedure were enrolled in the study. Pre-operative video urodynamics study (VUDS) were performed and they were classified into 3 groups: (i) stable bladder, (ii) DO and (iii) DU. The baseline urodynamic parameters and the therapeutic outcome were compared among 3 groups. The longest follow up in this study was up to 240 months.

Results

A total of 403 participants, 291 (72.2%) had stable bladder, 78 (19.4%) had DO and 34 (8.4%) had DU. The overall continence rate was 336 (83.4%), dysuria 71 (17.6%), urge incontinence 14 (3.5%), SUI and required secondary sling was 25 (6.2%) and urethrolisis was 13 (3.2%). The continence rate in stable bladder group was 84.5%, 80.8% in DO group and 79.4% in DU group, $p=0.59$. The therapeutic outcome of different bladder functions was shown in Table 1. Figure 1. Using Kaplan-Meier survival analysis, patients with stable bladder had the most sustainable cure rate for SUI, followed by patients with DO and lastly DU, $p=0.39$.

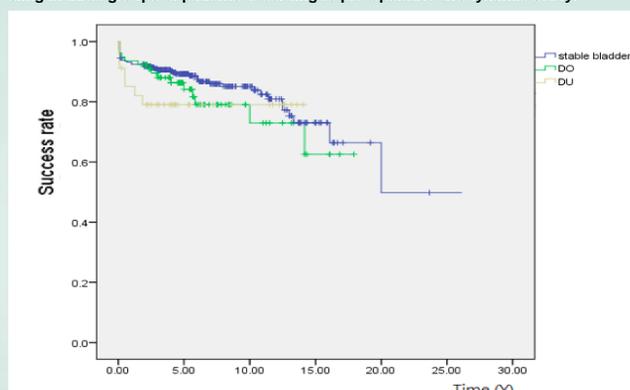
Results (Continued)

Table 1. Therapeutic outcome in patients with different groups.

Detrusor function	Therapeutic outcome; n (%)					
	Continent	De no vo UUI	De no vo Urgency	De no vo Dysuria	Urethrolisis	Secondary sling
Stable (n= 291)	246(84.5)	11(3.8)	13(4.5)	51(17.5)	11(3.8)	18(6.2)
DO (n=78)	63(80.8)	3 (3.8)	4(5.1)	15(19.2)	0	3(4.8)
DU (n=34)	27(79.4)	0	1(2.9)	5 (14.7)	2(5.9)	4(14.8)
Total (n=403)	336 (83.4)	14(3.5)	18(4.5)	71(17.6)	13(3.2)	25(6.2)

DO: Detrusor overactivity; DU: Detrusor underactivity; UUI: Urge urinary incontinence; SUI: Stress urinary incontinence

Figure 1. Kaplan-Meier Survival analysis of cumulative continence rate of suburethral sling in three groups of patients according to pre-operative urodynamic study.



	Continence Rate, % (Year)			
	5	10	15	20
Stable	88.6	83.8	73	49.8
DO	84.1	72.9	62.5	
DU	79.0			

Conclusion

The overall continence rate was 83.4% and the 10-year continence rate achieved at least 72.9%. Pre-operative urodynamic study for bladder function **could not** determine the therapeutic outcome in patients with SUI.

References

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