

Persistent overactive bladder after midurethral sling surgery: prevalence and risk factors

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AIMS OF STUDY

The **primary aim** of this study was to evaluate the prevalence and severity of persistent urgency and UUI after midurethral sling surgery.

The **secondary aim** was to determine the predictive factors for postoperative persistent urgency and UUI in patients with SUI

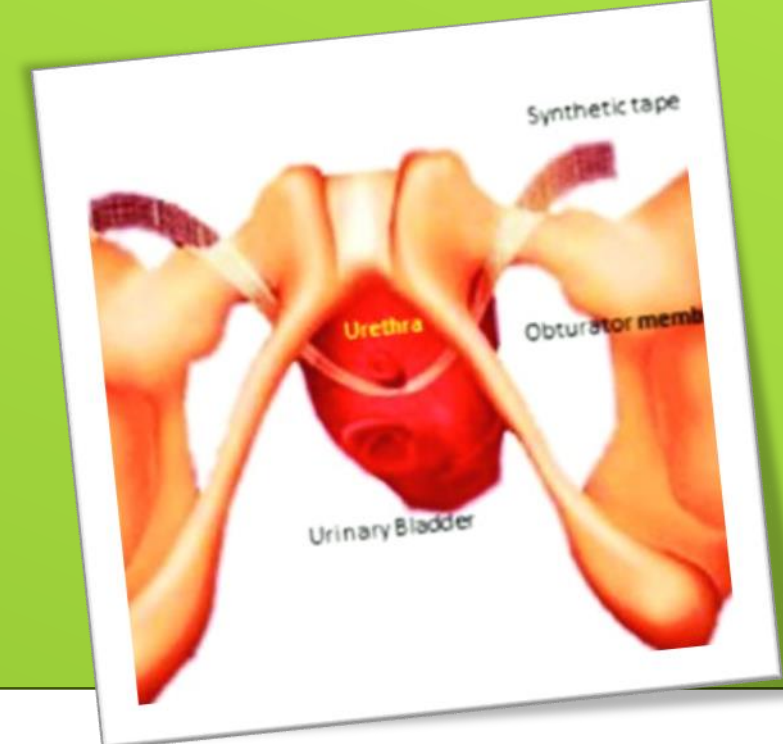
MATERIALS AND METHODS

This was a prospective study on female patients with SUI underwent "out-in" TOT from 2002 to 2015.

Exclusion criteria were: diabetes; neurologic disease; POP ≥stage II.

Preoperative evaluation included: history; pelvic examination; urodynamic study and transperineal ultrasound.

Follow-up visits were scheduled for 1 month, 6 months, 1 year, then annually, by the same preoperative protocol. Statistical analysis: p-value was <0.05; Student's t-test and chi-square analysis; Logistic regression analysis



RESULTS

A total of 289 patients (mean age, 56.2±10.7 years) were included in the study. The **mean follow up** was 155±85 months.

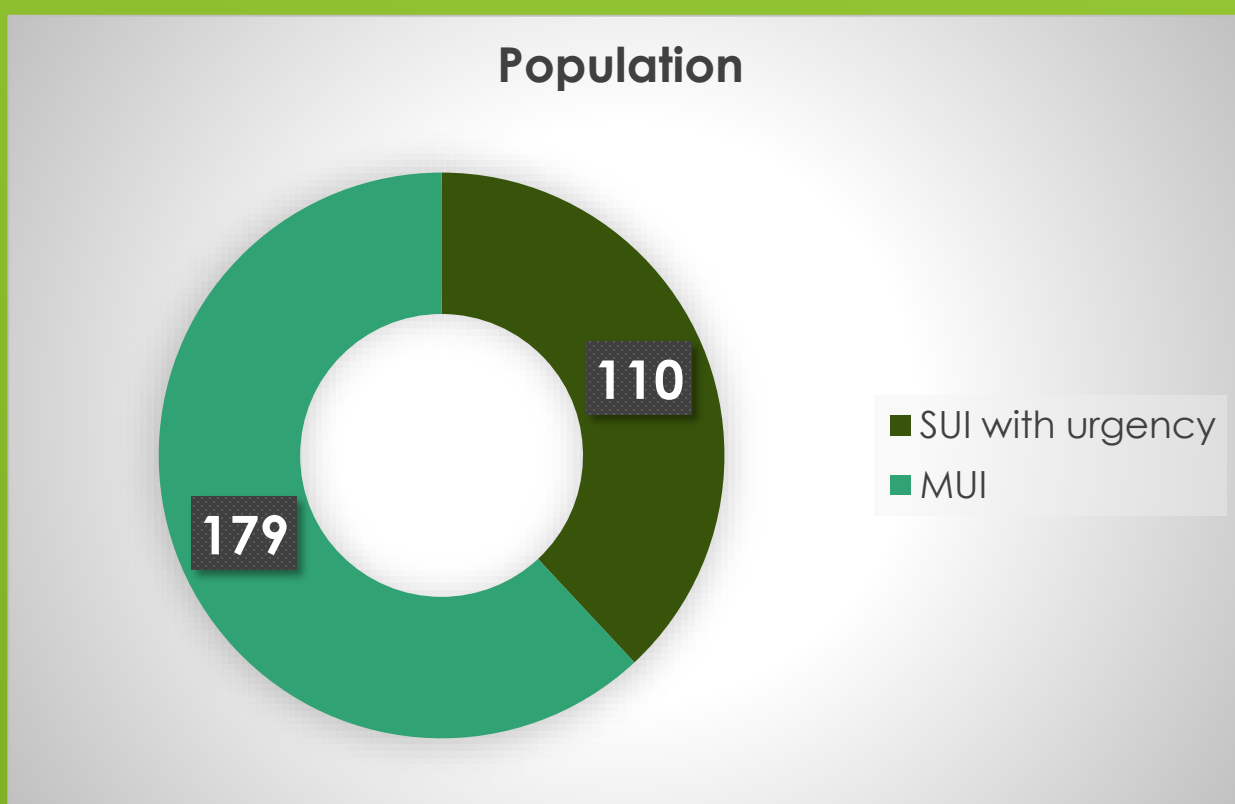
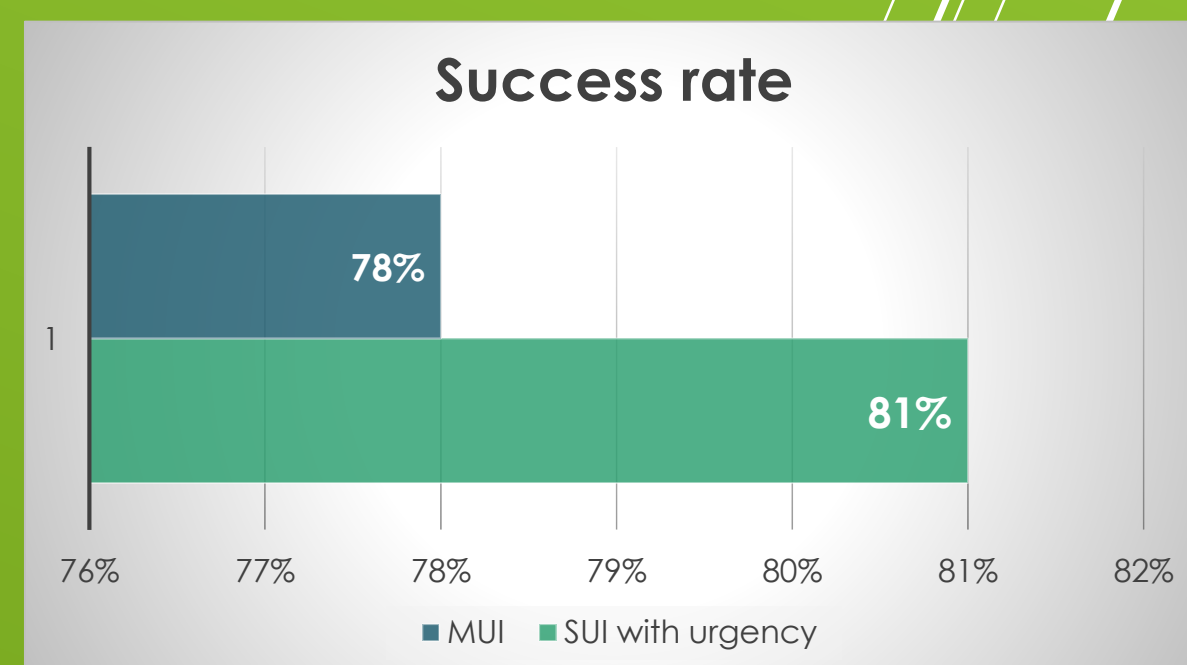


Table 1 Demographic and clinical data of population

Data	SUI with urgency (n=110)	MUI (n=179)
Age, mean±SD	58.97±10.98	60.5±10.95
≤60 years n(%)	68 (61.8)	90 (50.2)
>60 years n(%)	42 (38.1)	89 (49.7)
Previous hysterectomy, n(%)	8 (7.2)	17 (9.4)
Previous pelvic surgery, n(%)	26 (23.6)	28 (15.6)
Body mass index (kg/m2), median (range)	25.85(19.3-35.8)	26(19.5-45.2)
Normal 18.5-24.9, n(%)	49 (44.5)	49 (27.3)
Overweight 25-29.9, n(%)	48 (43.6)	73 (40.7)
Obese >30, n(%)	13 (11.8)	57 (31.8)
Menopause, n(%)	54 (49)	68 (37.9)
Detrusor overactivity n(%)	45 (40.9)	80 (44.6)

Table 2 Risk factors for persistent urgency in patients with SUI with urgency and MUI

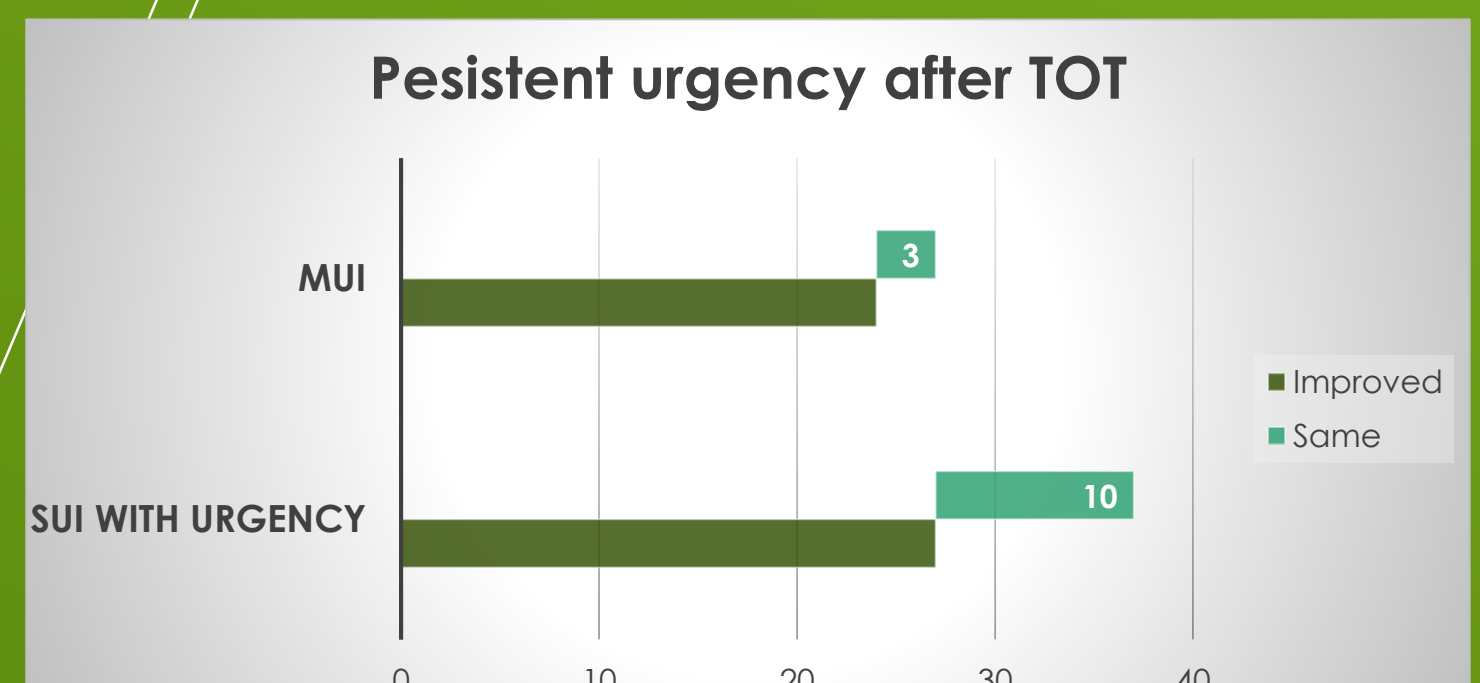
	Univariate HR (95% CI)	P value	Multivariate HR (95% CI)	P value
Persistent urgency in patients with SUI and urgency				
Age ≤60 years	0.75 (0.35-1.54)	p<0.0001	0.93 (0.42-1.81)	0.01
Age > 60 years	1.27(0.91-2.32)	p<0.0001	2.81 (1.12-3.97)	0.02
Previous hysterectomy	0.87 (0.31-2.84)	0.24		
Previous pelvic surgery	1.45 (0.52-2.39)	0.01	1.84 (0.92-1.21)	0.001
Normal 18.5-24.9	0.21 (0.74-1.25)	p<0.0001	0.76 (0.01-1.47)	0.01
Overweight 25-29.9	1.87 (0.69-2.84)	p<0.0001	2.62 (1.12-3.87)	0.02
Obese >30	4.74 (2.29-7.35)	p<0.0001	3.78 (1.21-5.62)	0.001
Detrusor overactivity	1.32 (0.18-2.63)	0.02	2.93 (1.44-3.95)	0.001
Menopause	2.34 (1.23-5.98)	0.001	3.25(1.47-4.37)	0.001
Persistent UUI in patients with MUI				
Age ≤60 years	0.87 (0.62-1.74)	0.001	1.23 (0.61-1.86)	0.01
Age > 60 years	1.25 (0.45-2.56)	p<0.0001	2.45 (1.21-3.87)	0.001
Previous hysterectomy	0.74 (0.02-1.93)	0.31		
Previous pelvic surgery	1.59 (0.34-2.73)	0.02	2.36 (1.02-3.98)	0.001
Normal 18.5-24.9	0.22 (0.47-1.89)	0.001	0.76 (0.15-1.74)	0.01
Overweight 25-29.9	1.54 (0.75-2.87)	p<0.0001	2.21 (1.70-4.45)	0.001
Obese >30	3.41 (1.10-8.32)	p<0.0001	4.85 (1.78-5.23)	0.01
Previous treatment by anticholinergic	2.14 (0.12-3.57)	0.001	3.73 (1.41-4.32)	0.01
Detrusor overactivity	1.45 (0.74-2.92)	0.001	3.21 (1.47-3.92)	0.001
Menopause	2.34 (1.23-5.98)	0.001	3.25(1.47-4.37)	0.001



In the **SUI WITH URGENCY GROUP** de novo UUI developed in 23 patients (20.9%), of these 16% after 4 years. **Sixtyeight patients (62.3%) had resolved urgency.**

In the **MUI GROUP** 111 patients (62%) had resolved UUI, **with resolved urgency in 75 (41.8%)** and remnant urgency in 27 (15%). Sixtyeight patients (37.9%) had persistent UUI. Among them, the degree of urgency was improved in 55, the same in 4, and aggravated in 13.

The BMI≥25 kg/m², age > 60 years, detrusor overactivity during preoperative urodynamic test, previous pelvic surgery and use of anticholinergics, menopause, were risk factors for de persistent urgency and UUI after SUI surgery in patients with pure SUI, and for de novo UUI in patients with SUI and OAB dry..



CONCLUDING MESSAGE

Preoperative urgency and urgency urinary incontinence may persist after anti-incontinence surgery in patients with SUI, probably due to a different pathophysiology. Knowing the risk factors is important for good counselling