347

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CAN WE DECREASE INCIDENCES OF UNDESIRED URGENCY AFTER MID-URETHRAL SLING SURGERY?

Hypothesis / aims of study

In patients treated due to stress urinary incontinence (SUI), lower urinary tract symptoms (LUTS) can come about after mid-urethral sling (MUS) surgery. While all such undesired LUTS after MUS can induce dissatisfaction, urgency is considered to be one of the most common observed of these. The aim of our study was to assess the efficacy of solifenacin as a prophylaxis of undesired urgency in women after transobturator MUS.

Study design, materials and methods

The study group consisted of 121 patients after MUS surgery due to SUI. All selected patients had undergone an ambulatory transobturator MUS procedure with additional tape fixation as previously described [1]. In the study, all participants were questioned before and after surgery for occurrence of common LUTS. These were divided into the follwing categories: storage (urgency, frequency, nocturia), voiding (splitting/spraying, hesitancy, terminal dribbling) and post-micturition (feeling of incomplete emptying) symptoms. In all patients, bladder outlet obstruction was excluded by additional testing (uroflowmetry and ultrasonographically checking of tape malposition, as well as by measurement of a post-void residual (PVR). The patients were then randomly placed with 2 groups:
1. without any additional treatment (control group, n=65)
2. prophylaxis with 10 mg of solifenacin taken orally once daily (treatment group, n=56).

Analysis of LUTS evolution and efficacy of solifenacin as prophylaxis of urgency was performed based on results of assessments made during follow-up (FU) visits at 1 and 6 weeks post-operatively. Statistical analysis was performed with Statistica Statsoft, version 12 package, using the $\chi 2$ test, ANOVA with post-hoc tests and the Student t test, as appropriate. A p value<0.05 was considered as statistically significant.
The study protocol was approved by the local Ethical Committee, and informed written consent was obtained from all study participants.

Results

Baseline demographic characteristics were similar between groups (see Table 1).
Table 1. Demographic characteristics of patient groups.

Variable	Control group (n=65)	Treatment group (10 mg of solifenacin) (n=56)	*p*
Age (years)	58.4 (13.1)	57.6 (11.9)	NS
BMI (kg/m^2)	27.2 (3.2)	26.8 (3.4)	NS
Age of menopause (years)	48.1 (5.0)	47.4 (5.3)	NS
Parity	1.98 (0.87)	2.04 (0.99)	NS

(Continuous variables are presented as the mean±SD). NS - not significant

The evolution of LUTS in both groups is summarized in Table 2.
Table 2. Clinical outcomes at 1 week and 6 weeks of follow-up in both groups [control group and treatment group (10 mg of solifenacin taken orally once daily)].

Symptom	1 week of follow-up		Difference between groups *p*	6 weeks of follow-up		Difference between groups *p*
	Control group (n=65)	Treatment group (n=56)		Control group (n=65)	Treatment group (n=56)	
Urgency	50 (76.9)	20 (35.7)	<0.001	12 (18.5)	7 (12.5)	NS
Frequency	12 (18.5)	9 (16.1)	NS	6 (9.2)	4 (7.1)	NS
Nocturia	12 (18.5)	6 (10.7)	NS	3 (4.6)	1 (1.8)	NS
Splitting/spraying	25 (27.7)	19 (33.9)	NS	12 (18.5)	8 (14.3)	NS
Hesitancy	21 (32.3)	14 (25.0)	NS	16 (24.6)	10 (17.8)	NS
Terminal dribbling	22 (33.8)	19 (33.9)	NS	16 (24.6)	12 (21.4)	NS
Feeling of incomplete bladder emptying	18 (27.7)	11 (19.6)	NS	12 (18.5)	8 (14.3)	NS

Data presented as number and %. NS - not significant

Interpretation of results

At week 1 of follow-up, we observed a more than twice lower incidence of urgency in women after MUS who had received the solifenacin prophylaxis. This finding is important because urgency can be a significant factor of influence on patients' dissatisfaction after MUS. We did not, however, observe additional benefits of prophylaxis with solifenacin on other analyzed LUTS.

Concluding message

Solifenacin can significantly improve patients' satisfaction after MUS by decreasing the number of episodes of undesired urgency in early postoperative recovery.

References

1. J Urol. 2011;186:180-4

Disclosures

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