

The surgical effect on overactive bladder symptoms in women with pelvic organ prolapse

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Supplementary Table 1. Primer sequences of GAPDH, ER- α , ER- β , PR and AR for real-time quantitative RT-PCR

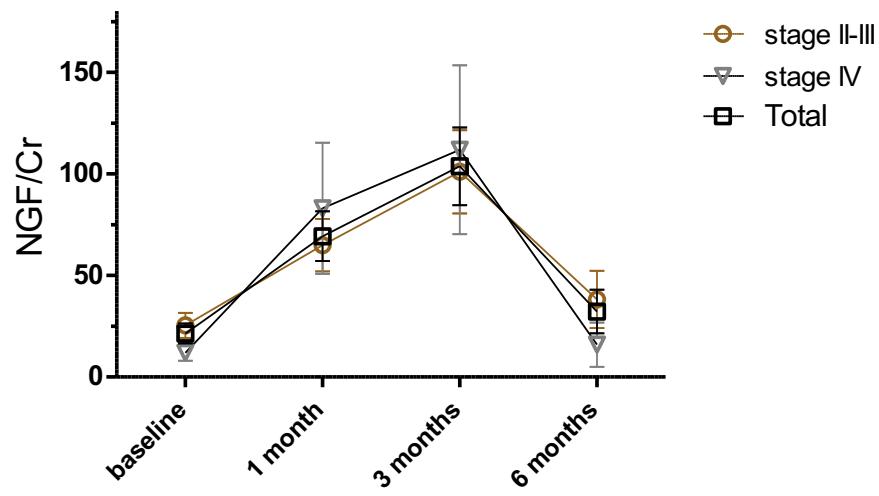
	Forward	Reverse
GAPDH	TGCACCACCAACTGCTTAGC	GGCATGGACTGTGGTCATGAG
ER- α	CAGGAACCAGGGAAAATGTG	AACCGAGATGATGTAGCCAGC
ER- β	ACTTGCTGAACGCCGTGACC	CAGATGTTCCATGCCCTTGTT
PR	TGAATCCGGCCTCAGGTAGTT	CGCGCTCTACCCTGCACTC
AR	TCACCGCACCTGATGTGTG	ACATGGTCCCTGGCAGTCTC

AR, androgen receptor; ER, oestrogen receptor; GAPDH, glyceraldehyde 3-phosphate dehydrogenase; PR, progesterone receptor

Supplementary Table 2. The OABSS at baseline and postoperative follow-up in POP without OAB and POP with OAB groups

OABSS	Follow-up	POP without OAB	POP with OAB
Question 1	Baseline	0.28 ± 0.07 (n=42)	0.87 ± 0.07 (n=55)
Daytime frequency	1month	0.24 ± 0.08 (n=33)	0.85 ± 0.12 (n=26)
	3 months	0.17 ± 0.08 (n=23)	0.72 ± 0.12 (n=25)
	6 months	0.27 ± 0.12 (n=15)	0.82 ± 0.05 (n=22)
Question 2	Baseline	0.61 ± 0.09 (n=42)	1.71 ± 0.13 (n=55)
Nighttime frequency	1month	0.58 ± 0.12 (n=33)	1.54 ± 0.22 (n=26)
	3 months	0.78 ± 0.14 (n=23)	1.16 ± 0.20 (n=25)
	6 months	0.73 ± 0.21 (n=15)	1.51 ± 0.09 (n=22)
Question 3	Baseline	0.19 ± 0.07 (n=42)	2.78 ± 0.19 (n=55)
Urgency	1month	0.09 ± 0.05 (n=33)	1.73 ± 0.33 (n=26)
	3 months	0.09 ± 0.06 (n=23)	1.08 ± 0.33 (n=25)
	6 months	0.40 ± 0.21 (n=15)	1.14 ± 0.34 (n=22)
Question 4	Baseline	0.05 ± 0.03 (n=42)	1.38 ± 0.19 (n=55)
Urgency Incontinence	1month	0.03 ± 0.03 (n=33)	1.15 ± 0.29 (n=26)
	3 months	0.04 ± 0.04 (n=23)	0.44 ± 0.21 (n=25)
	6 months	0.2 ± 0.2 (n=15)	0.45 ± 0.24 (n=22)
Total score	Baseline	1.12 ± 0.13 (n=42)	6.87 ± 0.35 (n=55)
	1month	0.91 ± 0.15 (n=33)	5.27 ± 0.76 (n=26)
	3 months	1.09 ± 0.20 (n=23)	3.40 ± 0.61 (n=25)
	6 months	1.6 ± 0.57 (n=15)	3.77 ± 0.61 (n=22)

Supplementary Figure 1. Line graph of Table 2



Supplementary Table 3. Urodynamic parameters before and after surgery

UD parameters	Pre-operative(n=64)	Post-operative(n=64)	<i>P</i> -value
Q _{max} (ml/s)	14.3 ± 1.2	26.3 ± 1.4	<0.001
Q _{ave} (ml/s)	4.6 ± 0.4	9.7 ± 0.6	<0.001
Voided volume (ml)	164.9 ± 16.0	341.8 ± 19.3	<0.001
Residual volume (ml)	132.2 ± 13.3	51.9 ± 7.1	<0.001
1 st desire to void (ml)	138.5 ± 8.4	146.9 ± 9.0	0.341
Max capacity (ml)	329.9 ± 13.9	318.8 ± 13.0	0.364
MUCP (cmH ₂ O)	57.5 ± 2.5	51.9 ± 1.9	0.013
FL (cm)	2.7 ± 0.1	2.6 ± 0.1	0.248

Item listed as mean ± SEM.

Paired-t test was used to test for statistical significance between preoperative and postoperative group

Supplementary Table 4. Comparison of OAB ratio, OABSS and the urinary NGF at

baseline and postoperative follow-up between control group and premarin group

	Control (n=61)	Premarin (n=24)	P-value
OAB n(%) ^a	30 (49.2)	18 (75.0)	0.031
OABSS ^b			
Baseline	3.7 ± 0.4 (n=61)	6.7 ± 0.8 (n=24)	<0.001
1month	2.4 ± 0.4 (n=49)	4.5 ± 0.7 (n=20)	0.013
3 months	1.5 ± 0.3 (n=44) †	3.5 ± 0.8 (n=17) †	0.028
6 months	1.5 ± 0.4 (n=38) †	2.7 ± 0.6 (n=18) †	0.113
NGF/ Cr (pg/mg) ^b			
Baseline	27.70 ± 7.20 (n=61)	10.37 ± 4.47 (n=24)	0.002
1month	82.66 ± 14.68 (n=52) †	2.50 ± 1.03 (n=18)	<0.001
3 months	136.97 ± 25.73 (n=34) †††	124.16 ± 53.73 (n=14) *,†	0.712
6 months	72.42 ± 17.49 (n=24)	25.05 ± 20.05 (n=16)	0.020

NGF: nerve growth factor

OABSS: overactive bladder symptom score

Control group: postmenopausal women untreated with vaginal premarin cream

Premarin group: postmenopausal women used vaginal premarin cream at least 2 weeks preoperatively

Item listed as mean ±SEM and n (percentage).

^a Chi-square test was used to test for statistical significance between control and premarin group.

^b Student's t test was used to test for statistical significance between control and premarin group.

One-way analysis of variance (ANOVA) was used to test for statistical significance between baseline, 1,3 and 6 months postoperatively group.

†, statistically significant difference in comparison with baseline(P<0.05).

*, statistically significant difference in comparison with 1 month (P<0.01).

†††, statistically significant difference in comparison with baseline(P<0.001).