

DEGREE OF PREOPERATIVE PELVIC ORGAN PROLAPSE IS ASSOCIATED WITH PERSISTENT VOIDING DYSFUNCTION AFTER CYSTOCELE REPAIR

Hypothesis / aims of study

It has been reported that women with significant cystocele unusually show voiding dysfunction (VD). This study was designed to further elucidate the correlation between cystocele and persistent VD after cystocele repair using the standardized Pelvic Organ Prolapse Quantification (POP-Q) staging system in stress urinary incontinence (SUI) and concomitant cystocele patients.

Study design, materials and methods

The clinical records of 112 women who underwent cystocele (\geq POP-Q stage III) repair with concomitant midurethral sling were reviewed. Urodynamic study was performed preoperatively, and VD was defined as the presence of at least one of the following criteria: maximal flow rate below 15 mL/s or post-void residual urine volume (PVR) above 50 mL on preoperative uroflowmetry. Patients underwent postoperative follow-up uroflowmetry at the hospital discharge day and in 3 and 12 months. Persistent VD was defined as showing VD on uroflowmetry at postoperative 12 months. Age, POP-Q system, uroflowmetry and preoperative urodynamic parameters were compared between the groups.

Results

Of 112 women, 56 had VD preoperatively, and 17 showed persistent VD. In the persistent VD group, failure of the postoperative voiding trial was more frequent ($p = 0.022$) and points Aa and Ba were significantly longer ($p = 0.006$ and $p = 0.016$, respectively).

Interpretation of results

Age, points Aa and Ba in the POP-Q system were significantly correlated with persistent VD after the correction of cystocele (correlation coefficient = 0.386, 0.541, 0.626, respectively).

Concluding message

Age, points Aa and Ba of POP-Q system had positive correlations with persistent VD after cystocele repair in women with cystocele.

Table 1. Baseline demographic and clinical data of women receiving cystocele repair according to the presence of persistent voiding dysfunction.

Parameter	Persistent voiding dysfunction		p-value
	Present (n=17)	Absent (n=39)	
Age (yr)	67.9 \pm 8.0	61.3 \pm 8.2	0.012
Qmax (ml/s)	11.7 \pm 7.4	13.9 \pm 7.2	0.321
PVR (ml)	66.9 \pm 47.8	40.9 \pm 48.6	0.090
PdetQmax (cmH ₂ O)	19.2 \pm 8.3	22.1 \pm 11.4	0.382
Pdetmax (cmH ₂ O)	27.2 \pm 13.2	32.7 \pm 13.3	0.214
Aa (cm)	2.9 \pm 0.2	2.2 \pm 0.6	0.006
Ba (cm)	3.6 \pm 0.9	2.2 \pm 0.9	0.016
TVL (cm)	4.0 \pm 1.4	3.7 \pm 0.8	0.746
C (cm)	-0.1 \pm 4.6	-0.1 \pm 3.0	0.992
D (cm)	-0.9 \pm 2.6	-1.9 \pm 2.0	0.517
Ap (cm)	-2.2 \pm 0.6	-2.1 \pm 0.9	0.901
Bp (cm)	-2.0 \pm 0.5	-2.1 \pm 1.1	0.927
Failure (%) of Postoperative voiding trial	15 (88.2)	27 (69.2)	0.022
Qmax (ml/s) at discharge day	10.1 \pm 5.8	16.4 \pm 6.6	0.003
PVR (ml) at discharge day	76.0 \pm 56.7	30.0 \pm 39.0	0.008
Qmax (ml/s) at postoperative 12th month	11.7 \pm 7.9	19.9 \pm 8.5	0.000
PVR (ml) at postoperative 12th month	84.7 \pm 72.5	20.3 \pm 18.8	0.005

Disclosures

Funding: none **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Institutional Review Board of the Korea University Hospital **Helsinki:** Yes **Informed Consent:** Yes