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SHORT- TERM OUTCOME OF MANAGEMENT OF SEVERE CYSTOCELE WITH PERIGEE SYSTEM

Hypothesis / aims of study

The purpose of this study was to evaluate the outcome of Perigee system for the management of severe anterior vaginal wall prolapse in pelvic reconstructive surgery.

Study design, materials and methods

Patients with POP-Q grade III/IV cystocele who underwent transvaginal pelvic reconstructive surgery with Perigee device between May 2006 and June 2008 were reviewed. The preoperative and postoperative clinical examination including the International Continence Society Pelvic Organ Prolapse Quantification system (ICS POP-Q) and multichannel urodynamic study. The preoperative and postoperative parameters were compared with paired-t test, $p<0.05$ was significant.

Results

A total of 77 women received the surgery with Perigee mesh, the mean age of the women was 64 years (range, 45-85 years) and mean parity was 3.9 (range, 0-8). Sixty-five of the 77 women had concomitant TVT-O procedure, including 29 women had USI, 36 women had occult USI. The mean follow-up duration was 15.64 months (range, 5-31). The concomitant procedures done with Perigee were list on Table 1. Four (5.56%) patients had vaginal bleeding after discharge, but this condition was well managed with conservative packing of vagina. Ten (13%) patients were noted to have mesh protrusion through the vagina. The comparing results of preoperative and postoperative clinical examination showed on Fig.1 and Fig.2. All parameters of POP-Q system except total vaginal length had significant improvement. The successful rate (stage 0 or I) of each compartment reconstruction was more than 90%. A total of 51 patients were available to have complete preoperative and postoperative urodynamic study (Table 2). The post void residual and PAD testing showed significant improvement ($P<0.05$).Seventy-two (93.5%) patients were free of genital prolapse during the short-term follow-up, 2 patients had recurrent grade II uterine prolapse, 3 patients had recurrent grade II cystocele. Six (7.79%) patients had mild SUI after operation. There were no life-threatening complications.

Interpretation of results

Pelvic reconstruction with Perigee system could correct the pelvic organ prolapse effectively without shortening of the vaginal length. The improvement of cystocele could result in better emptying of bladder. Combining TVT-O surgery in cases of severe cystocele with USI and occult USI showed satisfactory results.

Concluding message

The short- term results of Perigee system seem encouraging. More than 90% patients were free of genital prolapse during the short-term follow-up. There were no life-threatening complications. However, the exact tolerance of vaginal mesh repair of the prolapse is an unknown issue. We remain careful on the extension of the indications of this technique.

Table 1

Other concomitant procedures done

Surgery (Perigee with …)	Number(77)
Previous hysterectomy	**24**
Perigee+posterior IVS+TVT-O	19
Perigee+posterior IVS	3
Perigee+IVS+A-P repair	1
Perigee+TVT-O	1
VTH and	**26**
Perigee+posterior IVS+TVT-O	16
Perigee+posterior IVS	2
Perigee+P-repair+TVT-O	2
Perigee+TVT-O	6
Preserved uterus and	**27**
Perigee+posterior IVS+TVT-O	20
Perigee+posterior IVS	6
Perigee+TVT-O	1

Posterior IVS : 67(87%)

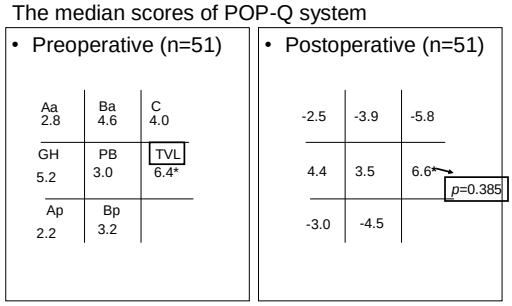
TVT-O : 65(84.4%)
-USI: 29(37.7%)
-Occult SUI:36(46.7%)

Estimated blood loss : 169.4±111.8 (50-550) mL

Hospital days : 6.2±1.2 (4-10) days

Figure 1.

The median scores of POP-Q system



P<0.05 among all parameters except TVL

Figure 2

Comparison pre-op and post-op POP-Q stages

Anterior wall prolapse		
	pre-op	post-op
Stage IV	55	-
Stage III	22	3
Stage II	-	3
Stage I,0	-	71/77 (92.2%)

Posterior wall prolapse		
	pre-op	post-op
Stage IV	22	-
Stage III	38	-
Stage II	17	4
Stage I,0	-	73/77 (94.8%)

Uterine prolapse (preserve uterus)		
	pre-op	post-op
Stage IV	19	-
Stage III	7	1
Stage II	1	1
Stage I,0	-	25/27 (92.6%)

Table 2

The urodynamic parameters between the preoperative and postoperative condition

Total number 51	Pre-op	Post-op	*p* value
Qmax (mL/s)	19.3±12.2	20.2±8.5	0.677
Average flow rate (mL/s)	8.3±5.3	8.9±4.4	0.564
Post void residual urine (mL)	51.7±44.5	24.8±34.2	**0.016**
First sensation (mL)	155.8±47.4	145.7±47.0	0.368
Max cyst capacity (mL)	363.8±80.2	377.3±87.0	0.397
MUCP (cmH_2O)	66.4±24.1	62.0±17.9	0.256
Functional length (mm)	35.3±7.4	33.7±10.2	0.465
PAD test (gm)	13.2±23.2	0.4±1.8	**0.005**

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Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**Chung Gung Memorial Hospital**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**