

MEDIUM-TERM COMPARISON OF UTERINE SPARING VERSUS HYSTERECTOMY IN PELVIC RECONSTRUCTION TREATED WITH ELEVATE SYSTEM MESH

Hypothesis / aims of study

This study aims to compare the surgical outcomes and complications between hysterectomy and uterine sparing in treatment of severe prolapsed uterine with single incision transvaginal mesh of Elevate system.

Study design, materials and methods

256 patients diagnosed with POP-Q stage 3/4 uterine prolapse who have undergone reconstructive repair with trans-vaginal Elevate system mesh from November 2010 to November 2014 were identified by chart reviews. All patients were divided into two groups: hysterectomy (n=183) and uterine sparing (n=73) (table 1). Pre-operative and post-operative subjective assessments urine and prolapsed symptoms, objective POP-Q score, urodynamic examination, and complications were compares between the groups.

Results

The mean follow-up periods were 36 months (range 24-70 months). There were no between-group differences in anatomy and functional outcomes after surgery. No statistically significant differences were found in postoperative adverse events between the groups (table 2 and table 3).

Table 1. Demographics data of patients

	VTH (n=183)	Preserve U(n=73)	p value
Age	65.8±9.88	63.9±9.21	0.03
BMI	24.7±3.60	24.4±3.19	0.83
Parity	3.5±1.46	3.3±1.31	0.24
Diabetes	36(24.5%)	10(19.2%)	
Menopausal status	145(98.6%)	51(98.1%)	

Table 2. POP-Q staging score of pre- and post-operatively of VTH and preserved uterus groups

	VTH (n= 183)			Preserve U (n= 73)			Between groups P value	
	Pre-op	Post-op	P value	Pre-op	Post-op	P value	Pre-op	Post-op
Aa	2.8±0.47	-2.9±0.19	<0.01	2.7±1.03	-2.6±0.79	<0.01	0.27	0.02
Ba	4.6±1.52	-2.9±0.69	<0.01	4.3±2.00	-2.7±1.24	<0.01	0.43	0.49
C	4.6±1.62	-6.9±1.73	<0.01	4.4±2.46	-6.9±2.95	<0.01	0.29	0.93
gh	4.9±0.72	3.4±1.23	<0.01	4.9±0.81	3.3±0.67	<0.01	0.36	0.86
pb	2.8±0.73	3.3±0.59	<0.01	2.7±0.53	3.1±0.62	<0.01	0.58	0.29
TVL	7.3±0.86	7.4±0.97	0.67	7.4±0.89	7.7±1.94	0.41	0.52	0.09
Ap	2.7±0.64	-2.8±0.98	<0.01	2.0±1.51	-2.8±0.35	<0.01	<0.01	0.84
Bp	4.3±1.69	-3.0±0.46	<0.01	3.5±1.92	-2.90±1.06	<0.01	0.01	0.47
D				3.1±2.82	-7.1±2.18		0.02	

Table 3. Comparison of Urodynamic data of pre- and post-operatively of VTH and preserved uterus groups

	VTH			Preserve U			Between group <i>P</i> value	
	Pre-op	Post-op	<i>p</i> value	Pre-op	Post-op	<i>p</i> value	pre-op	post-op
Maxfr ¹	17.8±12.18	25.2±10.62	<0.01	17.8±13.52	26.0±8.62	<0.01	0.61	0.70
Afr ²	5.8±4.43	9.4±6.73	<0.01	5.8±4.39	8.8±3.84	<0.01	0.62	0.57
VV ³	234.0±197.82	309.7±135.66	<0.01	230.7±183.12	338.4±144.00	0.001	0.99	0.29
RU ⁴	115.7±126.15	42.9±69.27	<0.01	133.0±135.53	51.2±85.95	<0.01	0.91	0.55
Pad	9.3±33.48	4.6±12.34	0.23	7.8±35.88	3.3±8.43	0.48	0.80	0.61
1 st des	167.9±68.82	142.9±59.59	<0.01	152.1±56.22	164.3±91.01	0.47	0.56	0.13
Maxcap	365.3±104.62	320.3±98.95	<0.01	359.8±102.87	369.9±118.78	0.55	0.84	0.01
MUCP ⁵	67.1±29.38	57.0±29.52	<0.01	67.3±35.05	53.9±21.07	0.01	0.95	0.75
FL ⁶	32.5±37.07	27.1±6.07	0.17	27.1±5.46	25.6±9.73	0.42	0.65	0.60

Interpretation of results

Pelvic reconstruction using Transvaginal mesh (Elevate system) with hysterectomy or uterine sparing results in similar anatomic, functional outcomes and complications at 3 years follow up. Thus, in selected patients undergoing uterine prolapsed repair, we consider uterine sparing a viable alternative to hysterectomy. When discussing TVM repair, the possible adverse events should be discussed with the patients in details, and the possibility of uterine preservation.

Concluding message

Pelvic reconstructive repair using Elevate mesh system with hysterectomy and uterine sparing surgery has similar anatomic and functional results at 3 years. Therefore, we consider uterine sparing surgery to be an alternative to hysterectomy in prolapsed uterine repair.

Disclosures

Funding: none **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Chang Gung Medical Foundation Institutional Review Board **Helsinki:** Yes **Informed Consent:** Yes