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COMPARISON OF VIDEOURODYNAMIC RESULTS AFTER PUBOVAGINAL SLING USING RECTUS FASCIA AND PROLENE MESH FOR STRESS URINARY INCONTINENCE

Aims of Study: To compare the effect of pubovaginal sling using different sling materials on the voiding function and to compare the surgical results between two groups

Methods: Forty-eight women with type 2 or 3 SUI were randomly treated with pubovaginal sling procedure (PVS) either using abdominal rectus fascia (n=24) or prolene mesh (n=24) Videourodynamic study was performed at before operation, 7 to 14 days and 3 to 6 months after PVS to assess the effect of PVS on the bladder and urethral function The results and complications in the two groups were also compared

Results: The mean age (57±9 years for rectus fascia group and 59±11 for prolene mesh group) and parity (4±1 6 and 4±2 1 respectively were not significantly different Type 2 SUI was noted in 14 and 15, type 3 SUI in 7 and 5, and mixed type 2/3 in 3 and 4 of rectus fascia group and prolene mesh group respectively The follow-up period was 24 months and 23 months, respectively, for the two groups The following tables show the results of surgery (table 1) and videourodynamics (table 2) for them

Table 1. Comparison of the PVS results between rectus fascia and prolene mesh group

	Rectus fascia (n=24)		Prolene mesh (n=24)	
Operation time (min)	47 ± 6 (40-55)		35 ± 10 (27-49)	
Voiding after removing catheter (n=)	16	(67%)	20	(83%)
Delayed voiding in 7-14 days (n=)	6	(25%)	3	(12 5%)
Delayed voiding by 3 months (n=)	1	(4 2%)	0	
Urethrolysis to void (n=)	1	(4 2%)	1	(4. 2%)
Subcutaneous hematoma (n=)	2	(8 4%)	0	
Wound pain needs analgesics (n=)	20	(83%)	5	(20 8%)
Persistent dysuria after PVS (n=)	1	(4 2%)	2	(8 4%)
Continence (n=)	23	(96%)	22	(92%)
De novo urgency or DI (n=)	3	(12 5%)	3	(12 5%)

Table 2. Comparison of the videourodynamic results after PVS between the two groups

	Rectus fascia (n=24)			Prolene mesh (n=24)		
	Baseline	7-14 days	3-6 months	Baseline	7-14 days	3-6 months
Qmax(ml/s)	18 1±8 7	15 7±10 2	19 2±10 6	12 7±7 7	11 8±8 2	16 2±8 0
Capacity(ml)	320±129	263±145	327±101	291±119	237±79 5	253±96 7
Pdet(cmH_2O)	19 2±11 3	20 3±10 2	18 4±10 4	21 4±11 6	22 1±12 0	20 7±9 0
BNopen time(s)	9 5±8 5	14 9±8 3	9 1±6 1	10 7±8 7	21 0±38 9	13 0±11 3
Residuum(ml)	39 4±71 8	80 9±131	16 9±26 7	55 0±66 1	48 3±80 1	29 6±37 5

Conclusions: Videourodynamic results showed that no significant increase in urethral resistance after PVS either using rectus fascia or prolene mesh for sling material Part of the patients had an increased bladder neck open time, increased detrusor pressure and increased residual urine at 7 to 14 days after PVS, but these changes turned to baseline level at 3 to 6 months after PVS PVS using prolene mesh can shorten operation time and reduce postoperative pain without compromising voiding function or increase in postoperative complication Nevertheless, PVS using both rectus fascia and prolene mesh can provide effective results for type 2 and type 3 SUI