Comparison sexual function following transvaginal mesh (TVM) repair and LLMS (Laparoscopic Long Mesh Surgery) for treatment of Pelvic Organ Prolapse #25533

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Hypothesis / aims of study

Pelvic organ prolapse (POP) occurs in approximately 50 % of parous women. Pelvic organ prolapse (POP) can have a negative impact on sexual function. Surgery for POP corrects the pathologic process, but it might also alter sexual function. Our study aim is to compare the sexual function following transvaginal mesh (TVM) repair and laparoscopic long mesh surgery (LLMS) for the treatment of POP .

Study design, materials and methods

This was a retrospective study with Fifty-six consecutive women with symptomatic POP stages II to IV defined by the POP quantification (POP-Q) staging system were referred for TVM or LLMS procedures at our hospitals. All subjects were divided into the TVM group (n=30) and LLMS group (n=26). Preoperative and postoperative assessments included pelvic examination using the POP-Q system, multi-channel urodynamic study, one hour pas test and a personal interview to evaluate urinary and sexual symptoms with the short forms of Urogenital Distress Inventory (UDI-6) and Incontinence Impact Questionnaire (IIQ-7), and the Female Sexual Function Index (FSFI).Laparoscopic Long Mesh Surgery(LLMS) is a novel surgical approach designed for the treatment of apical prolapse. with augmented round ligaments was designed to create ventral uterine suspension by anchoring the mesh to the cervix and round ligaments. It has shorter operating time (about 1hr) , less time to master, less post-operative complications compared to laparoscopic sacrocolpopexy (current gold standard treatment of apical prolapse)

Results and interpretation

There was no difference between the 2 groups as for age, parity, diabetes, hypertension, concomitant procedures (P>0.05). Regarding the POP-Q analysis, there was a significant improvement at points Aa, Ba, C, and Bp (P<0.05) in both groups except for point Ap and total vaginal length (P>0.05). After LLMS surgery, the total scores and orgasm domain improved signifi cantly (P<0.05). However, other domains did not show significant difference in both groups.

Different types of TVM implantation may cause different effect on sexual function. Total TVM appeared to cause greater sexual impairment compared with anterior TVM alone. New generation of TVM cause less dyspareunia and mesh erosion with smaller in size, less dense texture and a single incision Design, only anterior compartment but not total vaginal wall. Laparoscopic sacrocolpopexy had a positive impact on sexual function. Laparoscopic long mesh suspension experienced greater sexual improvement on total scores and orgasm following surgery compared to vaginal mesh repair due to less vaginal mesh erosion and less condom like effect

Results and interpretation

Table 1. Clinical background in both groups.

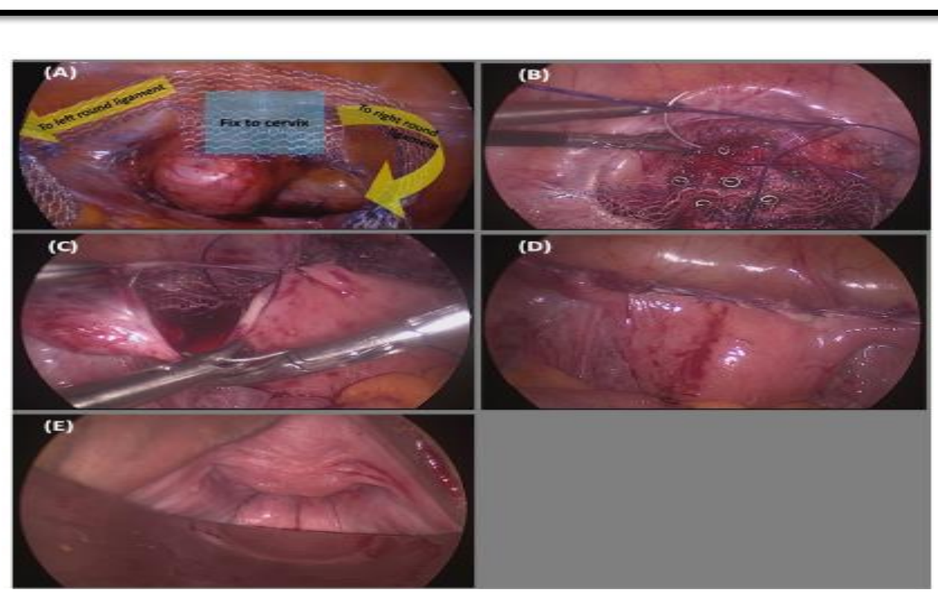
		TVM(N=30)	Long Mesh Sx(N=26)	P-Vaule
age		58.3±7.4	56.3±11.0	0.49
Parity		2.5±0.8	2.38±0.8	0.62
BMI		23.8±2.8	23.8±3.4	0.98
Pad		3.02±7.6	2.40±6.7	0.77
Past history	Hormone therapy	4(20)	8(30.8)	0.41
	Menopause	2(10)	2(7.7)	1
	Hypertension	2(10)	2(7.7)	1
	Diabetes Mellitus	6(30)	6(23.1)	0.60
	Hysterectomy	4(20)	4(15.4)	0.71
Concomitant	Cervical amputation	4(20)	8(30.8)	0.41
	Vaginal hysterectomy	2(10)	2(7.7)	1
	Mid-urethral sling	8(40)	10(38.5)	0.92

Table 2. Pelvic organ prolapse quantification (POP-Q) values in both groups before and after surgery. Data are given as mean ± standard deviation .

	TVM (N=30)			Long Mesh Sx (N=26)		
	Pre-op	Post-op	P-vaule	Pre-op	Post-op	P-vaule
Aa	0.1±1.68	-1.83±0.77	<0.001	0.15±1.49	-1.88±0.66	<.0001
Ba	2±1.72	-1.83±0.77	<.0001	2.15±1.59	-1.88±0.66	<.0001
C	0.3±3.44	-7.00±1.81	<.0001	0.85±3.20	-6.75±1.67	<.0001
Ap	-1.8±0.89	-2.11±0.32	0.11	-1.85±0.78	-2.00±0.42	0.33
Bp	-0.4±2.35	-2.11±0.32	0.003	-0.15±2.15	-2.00±0.42	<0.001
Tvl	9.3±1.53	8.67±1.88	0.066	9.27±1.34	8.42±1.74	0.005
UDI-6	5.9±3.77	2.20±2.09	<0.001	6.08±3.31	1.77±2.01	<.0001
IIQ-7	3.9±5.88	1.00±1.84	0.047	4.31±5.27	0.85±1.64	0.004

Table 3. Changes in scores of Female Sexual Function Index (FSFI) in both groups.

	TVM (N=30)			Long Mesh Sx (N=26)		
	Pre-op	Post-op	P-vaule	Pre-op	Post-op	P-vaule
Sexual desire	2.82±1.74	3.30±1.14	0.43	3.37±1.01	3.37±1.01	0.24
Sexual arousa	3.54±1.06	3.60±0.90	0.84	3.69±0.85	3.69±0.85	0.3
Lubrication	4.20±1.24	4.65±0.85	0.22	4.71±0.75	4.71±0.75	0.11
Orgasm	4.04±0.91	4.32±0.57	0.17	4.49±0.62	4.49±0.62	0.02
Satisfaction	4.64±1.15	4.80±0.80	0.58	4.86±0.78	4.86±0.78	0.14
Dyspareunia	4.32±1.00	4.80±0.92	0.14	4.74±0.96	4.74±0.96	0.13
Total scores	23.56±5.57	25.47±3.95	0.25	23.34±5.40	25.86±3.62	0.04
Decreased total scores		15/30 (50%)			10/26 (38.5%)	0.3



Conclusions

Both TVM and laparoscopic mesh procedures create an effective anatomical restoration of POP. Compared with the TVM group, women undergoing laparoscopic mesh suspension experienced a greater sexual improvement on total scores and orgasm following surgery.

References

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