

Does Concurrent POP Surgery affect Outcomes of Mid-Urethral Sling?

A Tertiary care Experience In Pakistan



Samia Aijaz, Novera Chughtai, Urooj Kashif, Sumera Malik
1-4 Affiliation Aga Khan University Hospital Karachi Pakistan

Objective:

This Study aimed to compare the efficacy of mid urethral sling surgery with or without concurrent POP surgery.

Methods:

Retrospective review was conducted on 345 patients. All patients undergoing MUS either Tension free vaginal tape or Transobturator tape for the treatment SUI were included. Two groups were formed; Group A, who had MUS surgery; Group B, who had concurrent MUS and POP surgery. Patient parameters documented including preoperative data, peri and postoperative complications and postoperative 6th month, 12th month satisfaction levels using UDI-6 and IIQ-7, negative cough stress test was defined as objective cure. Logistic regression used to identify the parameters for surgical failure at 6th and 12th month postoperatively

Results:

345 women underwent MUS surgery. The MUS with POP surgery was performed in 223 and MUS without POP surgery was performed in 122. Parity (>3), menopause was significant in those with concurrent prolapse (p>0.05) however positive pre-operative cough stress test was found in those who doesn't have concurrent prolapse (p=0.001). At 6th and 12th months, objective and subjective cure rates were not significantly different between the groups. However, UDI-6 scores statistically significant at 6th month among two groups. In logistic regression analysis BMI was the factor associated with objective failure at 6th month. MUS type and presence of concomitant Prolapse surgery were found to have no significance

Table 1: Comparison of demographic and clinical characteristics between groups (n=345)

Demographics	TVT/TOT with POP surgery n=223	TVT/TOT without POP surgery n=122	P-Value
Age (Years)			
≤ 50	96(43%)	68(55.7%)	0.025
>50	127(57%)	54(44.3%)	
Parity			
≤ 3	40(17.9%)	54(44.3%)	0.0005
>3	183(82.1%)*	68(55.7%)	
BMI (kg/m ²)			
≤ 25	71(31.8%)	38(31.1%)	0.895
>25	152(68.2%)	84(68.9%)	
Menopause			
Yes	131(58.7%)*	54(44.3%)	0.010
No	92(41.3%)	68(55.7%)	
Pre-operative cough stress test			
Positive	104(46.6%)	80(65.6%)*	0.001
Negative	119(53.4%)	42(34.4%)	

Table 2: Comparison of perioperative and postoperative complication between groups

Complications	TVT/TOT with POP n=223	TVT/TOT without POP n=122	p-Value
Perioperative	14(6.3%)	12(9.8%)	0.231
UTI	2(0.9%)	2(1.6%)	0.616
Urinary retention	6(2.7%)	4(3.3%)	0.747
Hematoma	2(0.9%)	0(0%)	0.542
Urethral injury	0(0%)	2(1.6%)	0.124
Bladder injury	4(1.8%)	4(3.3%)	0.460
Postoperative	40(17.9%)	22(18%)	0.982
Hispareunia	0	2(1.6%)	0.124
Dyspareunia	4(1.8%)	2(1.6%)	0.998
De novo urge	3(1.3%)	0	0.555
Pain	13(5.8%)	6(4.9%)	0.723
Fever	10(4.5%)	4(3.3%)	0.777
Mesh Complication	12(5.4%)	10(8.2%)	0.306

Table 3 comparison of outcomes between groups

Outcome	TVT/TOT with POP n=223	TVT/TOT without POP n=122	P-Value
Cure rate the end of 6 th month			
Objective cure			
Cough stress test			
Positive	12(5.4%)	8(6.6%)	0.655
Negative	211(94.6)	114(93.4%)	
Subjective cure			
Incontinence	205(91.9%)	108(88.5%)	0.060
Cured	16(7.2%)	8(6.6%)	
Improved	2(0.9%)	6(4.9%)	
No change at all			
Cure rate at the end of 12 th month			
Objective cure			
Cough stress test			
Positive	14(6.3%)	8(6.6%)	0.909
Negative	209(93.7%)	114(93.4%)	
Subjective cure			
Incontinence	207(92.8%)	106(86.9%)	0.060
Cured	12(5.4%)	8(6.6%)	
Improved	4(1.8%)	8(6.6%)	
No change at all			

Table #4 Comparison of satisfaction between groups

Outcome	TVT/TOT with POP surgery n=223	TVT/TOT without POP surgery n=122	p-Value
UDI6			
Pre			
Mean ± SD	27.82±11.12	27.60±11.26	0.859
Median[25-75percentile]	29.17[16.67-37.5]	25[16.67-37.5]	
Pre versus 6 months			
Mean ± SD	9.83±9.54	11.48±10.94	0.168
Median[25-75percentile]	8.33[0-16.67]	8.33[0-16.67]	
6 th months vs 12 months			
Mean ± SD	4.44±7.7	6.9±10.79	0.040*
Median[25-75percentile]	0[0-8.33]	0[0-8.33]	
IIQ7			
Pre			
Mean ± SD	37.26±18.81	42.38±19.44	0.022*
Median[25-75percentile]	38.09[19.05-47.62]	42.86[32.14-61.90]	
Pre versus 6 months			
Mean ± SD	8.71±10.62	11.48±13.39	0.090
Median[25-75percentile]	4.76[0-14.29]	9.52[0-19.05]	
6 versus 12 months			
Mean ± SD	2.73±6.01	4.76±10.02	0.116
Median[25-75percentile]	0[0-0]	0[0-4.76]	

Table # 5 Fcator that influence the mid urethral sling outcome at 6th and 12th month

Factors	end of the 6th month					end of the 12th months				
	N	Wald	P-Value	OR	95%CI (OR)	Wald	P-Value	OR	95%CI (OR)	
Age (Year)										
≤50	164									
>50	181	1.93	0.16	Ref 2.65	0.67-10.47	2.41	0.12	Ref 2.96	0.75-11.67	
Parity										
≤3	94									
>3	251	1.33	0.25	Ref 2.03	0.61-6.74	1.79	0.18	Ref 2.26	0.68-7.50	
BMI (kg/m ²)										
≤25	109									
>25	236	3.46	0.06	Ref 0.41	0.16-1.05	5.83	0.016*	Ref 0.32	0.13-0.81	
Menopause										
Yes	185									
No	160	1.00	0.32	2.03 Ref	0.51-8.14	1.05	0.31	Ref 2.06	0.52-8.22	
Surgery										
TVT	150									
TOT	195	0.75	0.757	1.17 Ref	0.43-3.14	.008	0.928	1.045 Ref	0.40-2.73	
Prolapse										
Yes	225									
No	122	2.95	0.086	0.23 Ref	0.04-1.22	2.129	0.145	0.343 Ref	0.08-1.44	
VH										
Yes	141									
No	204	2.17	0.140	3.25 Ref	0.67-15.58	1.63	0.20	2.39 Ref	0.63-9.16	

Conclusion

According to the current findings, simultaneous prolapse surgery and MUS surgery is just as risk-free and successful without any consequences as MUS surgery alone, and it has no effect on the success rate of MUS