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Foote A[1], Carne C[1], Lowndes C[1]
1. Calvary Hospital

LAPAROSCOPIC COLPOSUSPENSION VS VAGINAL MESH SLING: A RANDOMISED PROSPECTIVE TRIAL

Hypothesis / aims of study

This study aimed to determine which was the most effective form of two minimally invasive surgeries to treat female genuine stress incontinence. In particular laparoscopic colposuspension was compared with vaginal mesh sling (SPARC) in a randomised prospective trial.

Mesh sling surgery was first described in 1995. Mesh sling surgery was compared with open colposuspension in 2000 (1), in a randomised trial of 319 women, and found a similar success rate (89 vs 85%) with a significantly reduced hospitilisation rate (2.2 vs 6.5 days).

Burch colposuspension was first described in 1960, with a short term success rate of 90% and a 10 year success rate of 70% (2). Laporoscopic colposuspension was first performed in 1991, and has been compared with open Burch colposuspension in 2000 (3) with a randomised trial of 200 women. The success rates were similar (80%) with the laparoscopic group having a quicker recovery

Study design, materials and methods

Over a 2 year period, from January 2002 to March 2004, 80 women with urodynamically proven genuine stress incontinence were randomised to either laparoscopic colposuspension (LC) or vaginal mesh sling (VMS). The trial was approved by an ethics committee. Patients were excluded from the study if they had other bladder diagnoses such as detrusor instability or voiding difficulty, previous retropubic surgery, weight over 100kg, significant prolapse, required other gynaecological surgery, or were unsuitable for laparoscopic surgery. All surgeries were performed by the author

Baseline assessment included urodynamics, bladder diary, VAS score, Quality of Life Questionnaires (York and Urogenital Distress Inventory). Patients were again assessed at 6 months. Statistical analysis was performed using student T test and Chi squares with signifiance reported if $P<0.05$.

At baseline there were no significant different differences between the two groups.

	LC (n=40)	VMS (n=40)	P
Age	51.3	54.9	NS
Weight	70.0	73.1	NS
Parity	2.7	2.5	NS

Results

The VMS group had significantly shorter surgery time, hospitilisation and recovery.

	LC (n=20)	VMS (n=23)	P
Surgery (min)	48.6	31.3	<0.0001
EBL (mls)	102	83	0.04
Hospital (days)	4.1	1.6	<0.0001
Recovery (weeks)	3.8	2.8	0.01

Intraoperative complications in the laparoscopic group were one bladder suture requiring intraoperative repositioning. The vaginal prolene sling group had 3 needle perfotrations of the bladder requiring intraoperative repositioning

At six months the two groups had a similar success rate (90% vs 87%), with similar results also seen in VAS, and QOL assessments. There was a trend towards increased urgency in the VMS group.

LC (n=40)		VMS (n=40)	P	
Leaks/wk	0	8.55	8.89	
	6	1.35	3.1	NS
York	0	97.61	97.11	
	6	99.65	99.62	NS
UD	0	80.3	80.4	
	6	94.7	97.7	NS
VAS	0	5.5	5.0	
	6	1.5	0.6	NS
Cured/improved		18/20 (90%)	20/23 (87%)	NS
Voiding difficulty		0	1	
Urgency		3	6	
UTIs		0	1	
Mesh erosion		0	1	
Prolapse		1	0	

Concluding message

In the short term VMS results in significantly shorter operating time, time in hospital, and time to normal duties. In the longer term there were no significant differences between the two groups although the VMS had a higher incidence of urgency and a vaginal mesh erosion was noted. Laparoscopic colposuspension may be indicated for younger women who do not need prolapse surgery and in whom a long term foreign body may be of concern with regards to urgency and erosion.

References

1. A randomised trial of colposuspension and tension-free vaginnal tape (TVT) for primary stress incontinence. Neuro Urol 2000;19(4):386-388
2 Burch colposuspension: a 10-20 year follow up. Br J Obstet Gynaecol 1995;102:740-5
3. Laparoscopic versus open colposuspension: a prospective multicentre randomised single-blind comparison. Neuro Urol 2000;19(4):389-390