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Authors: AJ Foote

Institution: Calvary Hospital

Title: WHICH IS THE BEST MINIMALLY INVASIVE PROCEDURE? TVT VERSUS LAPAROSCOPIC COLPOSUSPENSION

Aims of Study:

To compare two different minimally invasive surgical procedures for the treatment of genuine stress incontinence. In particular the vaginal transvaginal tape (TVT) procedure, versus the laparoscopic colposuspension (LC).

Methods:

One hundred and twenty seven women with urodynamically proven genuine stress incontinence were prospectively studied. The women were allocated to either LC (n=81), or TVT (n=46). Since the introduction of the TVT there has been no long term data as to the incidence of mesh erosion into the urethra. For this reason younger women, with no obesity or expected intra-abdominal pathology were offered the LC. Alternatively older women with prolapse who required vaginal surgery or who were considered unsuitable for laparoscopic surgery were offered the TVT. There were significant differences between the groups with regard to age (50.5 vs 57.6 years), weight (69.6 vs 75.8 kgs), and previous retropubic surgery (0% vs 12.5%)

Follow up was reported at six months for 102 women. Cure was defined as no leaks/week on bladder diary, whilst improvement was defined as a greater than 50% improvement in leaks/week on bladder diary.

Results:

	LC (n ₀ =81, n ₆ =68)	TVT (n ₀ =46, n ₆ =34)	P
Leaks/week- 0	11.6	14.1	NS
Leaks/week- 6	1.4	4.9	NS
Other Surgery	7 (8.6%)	12 (26%)	0.01
Theatre Time*	66.8	31.2	<0.0001
EBL*	95.3	69	NS
Intra-op complications	5 (6.2%)	10 (20.8%)	0.01
Hosp. (days)*	3.5	3.3	NS
Duties (weeks)	3.2	3.2	NS
Cured/Improved	64/68 (94%)	28/34 (82%)	0.02
Post- op complications	9/68 (13%)	12/34 (33%)	0.01

*= only time for LC/TVT, Duties= time until normal duties, EBL= estimated blood loss, Hosp= hospital, NS= not significant, LC= laparoscopic colposuspension, P= probability, PS= prolene sling, TVT= transvaginal tape

The LC required significantly longer theatre time to perform, however had less intra-operative and post-

operative complications. In particular the postoperative voiding difficulty was significantly less in the LC group (0% vs 18%). The six month cure and improvement rate was significantly higher in the LC group.

Conclusions:

Open Burch colposuspension has been recently compared to TVT(1), and found to have a significantly greater blood loss and hospital stay, with a similar success rate at 6 months. This present study demonstrates a similar blood loss and hospital stay, with a greater success.

This study can be criticised as the patient groups were dissimilar owing to the selection criteria for surgery, and that older more obese patients underwent TVT. However the study does provide some evidence that laparoscopic colposuspension may be the more appropriate operation of first choice in young healthy women. Further randomised prospective studies are warranted.

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