

DAY CASE TVT-O, DOES LEARNING CURVE INFLUENCE PATIENT OUTCOME?

Hypothesis / aims of study

TVT-O insertion is one of the most commonly performed procedures for Urodynamic Stress Incontinence. This is preferably performed as a day case in our institution. Failure to achieve continence remains a small but significant problem. The short term results were evaluated with a view to identify high risk factors for failure of the procedure with particular focus on body mass index, parity, restricted mobility, past history of anti incontinence surgery and various other relevant urodynamic parameters.

Study design, materials and methods

Data was collected prospectively on 56 patients who underwent TVT-O (Tension-free vaginal tape obturator) insertion following diagnosis of urodynamic stress incontinence or mixed incontinence with predominant stress component with a minimum follow up of 4 months (4 to 48 months).

To determine the influence of learning curve on the patient outcome, the data was divided into two halves of 28 patients each. The factors under consideration were analysed using t-test for continuous data and fishers exact tests for categorical data. Data was analysed on SPSS (Version 16).

Results

The two groups were comparable at baseline as there was no significant difference between the two groups on age ($p=0.480$), parity ($p=0.210$) and restricted mobility ($p=0.352$).

However there was a significant difference in length of hospital stay (FE test, $p=0.001$), 86% of the second set of patients were discharged on the same day as opposed to 39% of the first set. This implies that patients tend to stay for more than 24 hours in early phase of learning curve. In our study, this was attributed to a clinician's attitude of being extra precautions during the early phase in learning curve. No statistical evidence of increased complications rates was found which lead to prolonged hospital stay.

In either group, statistically significant difference was noted for maximum detrusor pressure of more than 50cms of H₂O ($p=0.026$) during pre-operative voiding cystometry and short term results of sling surgery.

There was no statistically significant difference noted in other factors under consideration including history of previous anti-incontinence surgery, urogenital surgery, presenting symptoms of nocturia, frequency, urgency, urge incontinence, Q max, Q average, post void residual volume, presence of detrusor over activity during filling cystometry, objective and subjective success rates and complications between the two groups.

Interpretation of results

The patients were comparable on age, body mass index and mobility. There was a significant difference in the length of hospital stay which was not related to peri-operative complications, post operative continence rates or patient satisfaction. Hence it was attributed to an extra cautious surgeon in the early phases of learning curve. There was no statistically significant difference in the clinical outcome of the two groups. Learning curve did not have a statistically significant influence on the results of surgical intervention.

Concluding message

In this study, learning curve did not show a negative impact on patient outcome with regards complications and achieving continence. It did show negative impact on length of hospital stay. Elevated body mass index and impaired mobility also did not show a negative influence on patient outcome. Voiding pressures in excess of 50cms of water had a negative impact on achieving continence and patient satisfaction.

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<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	NONE