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HOW CAN WE DETERMINE PROPER TENSION FOR NEW MINIMALLY INVASIVE SLING SURGERY (TVT-SECUR)? : PROSPECTIVE RANDOMIZED STUDY

Hypothesis / aims of study

The objective of this study was to determine proper tension for TVT-secur and whether this affects surgical outcomes.

Study design, materials and methods

Eighty consecutive patients with urodynamic stress urinary incontinence were included in this prospective randomized study. The preoperative evaluations included a complete medical history, a female bladder questionnaires, urogynecological examination and urodynamic test with valsalva leak point pressure (VLPP). Patients were divided to two groups by intraoperative resting Q-tip test which is measured before and after the insertion of TVT-secur mesh. Group 1 (n=45) consists of over 50% change in degree of Q-tip, and group 2 (n=35) under 50% change in degree. Both groups were compared in their outcomes of surgery, postoperative maximal flow rate, post-voiding residual urine volume and assessment of goal achievement with 5cm visual analogue scale. Mean follow up period was 5.1 months (range 3-8 mo).

Results

The mean age was 52.7±8.8 in Group 1, 49.2±6.5 in Group 2. (p=0.093). Before surgery, body mass index, VLPP, preoperative maximal flow rate and post-voiding residual urine volume were 23.7±2.4, 82.8±18.8cmH₂O, 23.3±8.5ml/sec and 16.9±19.7cc in group 1, 24.4±3.3, 75.3±23.1, 25.7±10.9 and 12.2±12.3 in group 2. There was no statistically significant difference in each group. Mean change in degree of Q-tip before and after the insertion of TVT-secur mesh were 60.8% in group 1 and 36.4% in group 2 (p<0.05). Postoperative maximal flow rate and post-voiding residual urine volume were 21.5±8.0ml/sec and 16.3±17.6cc in group 1, and 25.7±10.9 and 12.2±12.3 in group 2 (p>0.05). There was no acute urine retention and obstructive voiding symptoms in both groups.

Interpretation of results

Compared to group 1 and 2, the rates of cure (88.9% and 74.3%), improvement (8.9% and 11.4%) and failure (2.2% and 14.3%, respectively) showed significant difference statistically (p<0.05). and assessment of goal achievement were 4.0±1.0 in group 1 and 3.29±11.1 in group 2 (p<0.05).

Concluding message

Our results suggest that proper tension is important in surgery of TVT-secur and Outcome was best in patients with correction of over 50% degree by intraoperative Q-tip test before and after the insertion of TVT-secur mesh. However longer follow up data are necessary before establishing the definitive success of surgery.

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Is this a clinical trial?	No
What were the subjects in the study?	NONE