**850**

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# PATIENT SATISFACTION AFTER TENSION FREE VAGINAL TAPE INSERTION FOR MANAGEMENT OF STRESS URINARY INCONTINENCE: COMPARISON BETWEEN TRANSVAGINAL VS TRANSOBTURATOR APPROACH

Hypothesis / aims of study

This is a prospective follow-up for patient's satisfaction and long-term improvement after tension free vaginal tape insertion for management of stress urinary incontinence (SUI).

Study design, materials and methods

Patients who underwent tension free vaginal tape insertion for management of SUI were mailed with validated questionnaire to assess the degree of improvement and their satisfaction. Only patients with minimum of one year of follow-up were included in the study. All surgical procedures were done in one center. Patients were classified based on the surgical technique (Transobturator vs Transvaginal). Patient's improvement was assessed with International Consultation on Incontinence Questionnaire - Short Form (ICIQ-SF) while the satisfaction was assessed with global response assessment scale. Categorical variables were analyzed with Chi square and Fisher exact method while continues variables were analyzed with Mann-Whitney U test.

Results

There was 330 patients responded back to the questionnaires. The average age was 54.8 years (± 12.9) and the median follow-up was 143.9 (± 76.9) months. A total of 128 (38.8%) patients underwent the TVT (transvaginal) technique while 202 (61.2%) underwent the TVT-O (transobturator) technique (Table 1). All the patients had SUI as the main complain and indication for the procedure (Table 2).

Interpretation of results

209 (60.9%) reported their improvement as very marked and there was no statistical difference between both surgical technique (Table 3). The ICIQ-SF score dropped from an average of 15 (±4.1) to 4 (± 5.7) with no significant difference between both group. De no-vo overactive bladder was the commonest reported adverse event and it was seen in 18 (5.5%) patients. The rate of post-operative severe incomplete emptying was much higher in the TVT group but was seen only in 7 patients (5.7%). (Table 4)

Concluding message

The tension free vaginal tape insertion for management of SUI has good and durable long-term effect. More than 85% of patients report that their symptoms had at least moderately improved. The complication rate is low and comparable. The TVT technique had higher rate of post-operative incomplete emptying.

Table 1: Patient's Demographic Data

| Variable | TVT (128, 38.8%) | TVT-O (202, 61.2%) | Overall (330,100%) |
|---|---|---|---|
| Overall age | 54.8 (± 12.5) | 54.7 (± 10.9) | 54.8 years (± 12.9) |
| Symptoms duration (mon) | 44.9 (± 57.3) | 49.3 (± 61.3) | 46.59 (± 58.6) |
| Gravida | 2.74 (± 1.9) | 2.38 (± 1.1) | 2.68 (±1.87) |
| Para | 2.46 (± 1.68) | 2.15 (± 1.2) | 2.41 (± 1.61) |
| Hysterectomy | 62 (48.4%) | 77 (38.1%) | 139 (42.1%) |
| Previous continence procedure | 28 (21.85) | 32 (15.8%) | 50 (15.2%) |
| Follow-up (months) | 154.5 (± 62.2) | 129 (± 86.6) | 143.9 (± 76.9) |

Table 2: Lower Urinary Tract Symptoms Severity (LUTS) Distribution (before surgery)

| Symptoms | None | Mild | Moderate | Severe |
|---|---|---|---|---|
| Frequency | 92 (27.9%) | 72 (21.8%) | 109 (33%) | 57 (17.3%) |
| Urgency | 93 (28.2%) | 79 (23.9%) | 138 (41.8%) | 20 (6.1%) |
| Nocturia | 146 (44.2%) | 117 (35.5%) | 50 (15.2%) | 17 (5.2%) |
| Suprapubic pain | 266 (80.6%) | 29 (8.8%) | 32 (9.7%) | 3 (0.9%) |
| Weak Steam | 244 (73.9%) | 48 (14.5%) | 38 (11.5%) | 0 (0%) |
| Incomplete Empty | 210 (63.6%) | 120 (36.4%) | 0 (0%) | 0 (0%) |
| Urge Incontinence | 160 (48.5%) | 68 (20.6%) | 97 (29.4%) | 5 (1.5%) |
| Stress Incontinence | 0 (0%) | 101 (30.6%) | 183 (55.5%) | 46 (13.9%) |

Table 3: Global Response Assessment Scale (at least one year after surgery)

| Number | Response | TVT | TVT-O | Total |
|---|---|---|---|---|
| 1 | Marked Worsening | 3 (2.4%) | 3 (1.5%) | 6 (1.8%) |
| 2 | Moderate Worsening | 6 (4.8%) | 8 (4.1%) | 14 (4.2%) |
| 2 | Slight Worsening | 2 (1.6%) | 6 (3.1%) | 8 (2.4%) |
| 4 | Unchanged | 2 (1.6%) | 14 (7.1%) | 16 (4.8%) |
| 5 | Slight Improvement | 9 (7.1%) | 18 (9.2%) | 27 (8.2%) |
| 6 | Moderate Improvement | 19 (15.1%) | 31 (15.8%) | 50 (15.2%) |
| 7 | Marked Improvement | 85 (67.5%) | 116 (59.2%) | 209 (60.9%) |

Table 4 Postoperative complication

| | TVT (128) | TVT-O (202) | Total (230) |
|---|---|---|---|
| De novo overactive bladder symptoms | 5 (3.9%) | 13 (6.4%) | 18 (5.5%) |
| Pain | 3 (2.3%) | 3 (1.5%) | 6 (1.8%) |
| Severe incomplete emptying<br>Temporally<br>Require tape release | 7 (5.4%)<br>4<br>3 | 1 (0.5%)<br>1<br>0 | 8 (2.4%) |
| Another continence procedure<br>Mid-urethral sling<br>Fascial sling | 2 (1.5%)<br>2<br>0 | 10 (4.9%)<br>6<br>4 | 12 (3.6%) |
| Dyspareunia | 0 | 2 (1%) | 2 (0.6%) |
| Tape erosion | 2(1.5%) | 1 (0.5%) | 4 (1.2%) |



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|---|---|
| ***Specify source of funding or grant*** | **None** |
| ***Is this a clinical trial?*** | **No** |
| ***What were the subjects in the study?*** | **HUMAN** |
| ***Was this study approved by an ethics committee?*** | **Yes** |
| ***Specify Name of Ethics Committee*** | **Capital Health Research Ethics Board, QEII Health Science Centre, Halifax, NS , Canada** |
| ***Was the Declaration of Helsinki followed?*** | **Yes** |
| ***Was informed consent obtained from the patients?*** | **Yes** |