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CONCOMITANT TVT-O PROCEDURE WITH PELVIC ORGAN PROLAPSE SURGERY

Hypothesis / aims of study

The aim of this study is to evaluate the efficacy of tension-free vaginal tape – obturator type (TVT-O) procedure to treat urodynamic stress incontinence (USI) in women with concomitant pelvic organ prolapse (POP) surgery.

Study design, materials and methods

This was a prospective case-control study. Thirty two patients with POP, all presenting uterine prolapse, and USI, including occult USI (group 1), were compared with thirty patients presenting USI only (group 2). All of the patients underwent preoperative assessments, including a detailed medical and surgical history-taking, and answered the Brazilian Portuguese validated version of King's Health Questionnaire for urinary incontinence (KHQ).(1) The pelvic examination included POP staging, using Pelvic Organ Prolapse Quantification System (POPQ). Urinary analysis, urine culture, pad-test and urodynamic test with reposition of the prolapse were also carried out. The group 1 patients underwent vaginal hysterectomy, anterior colporrhaphy, TVT-O and posterior colporrhaphy. Additionally, McCall culdoplasty was done in one case and sacrospinous ligament suspension was done in three cases. The group 2 underwent TVT-O procedure only. Patients were evaluated at approximately 1 week, 1 month, 3 months, 6 months and 1 year postoperatively. During the visit at 12 months after surgery, symptoms evaluation, KHQ application, POPQ staging, pad test and urodynamic examination were done. Subjective cure was defined as absence of stress urinary incontinence (SUI) symptoms. Objective cure was defined as no SUI during urodynamic testing. Statistical analysis was performed using Pearson's chi-square test for categorical variables and Student's *t* tests for numeric variables. A *P* value of less than 0.05 was considered significant.

Results

The average follow-up was 13 months. Group 1 and 2 patients had 65 (± 12 years) and 60 (± 12 years) years of age, respectively. Eleven patients (34.3%) of group 2 had POP stage II, twelve patients had POP stage III (37,5%) and nine patients had POP stage IV (28%). Of the 32 group 1 patients, 20 were diagnosed as USI, 3 patients were diagnosed as occult USI, 8 patients were diagnosed as USI and detrusor overactivity (DO), and 1 patient was diagnosed as occult USI and DO. Of the 30 group 2 patients, 28 were diagnosed as USI and 2 patients were diagnosed as USI and DO. The average Valsalva leak point pressure (VLPP) values were 88 (± 33 cm H_2O) for group 1 and 77 (± 30 cm H_2O) for group 2 patients. Pad test values were 42 (± 83 g) for group 1 patients and 62 (± 59 g) for group 2 patients. These differences between groups were not statistically significant.

Postoperatively, pad test values reached 0.9 (± 2.2 g) for group 1 and 0.9 (± 1.6 g) for group 2. Subjective and objective cure rates were, respectively, 100% and 93% for group 1 and 96% and 83% for group 2. These differences were not statistically significant.

Quality of life measures (QoL) using KHQ revealed no differences between the groups preoperatively, except for personal relationship dominion (worse in group 1) nor postoperatively. Group 1 patients had their QoL improved in all dominions. Group 2 patients had improvement in all dominions but general heath.

Interpretation of results

Pelvic floor defects can occur at different sites, causing different combinations of symptoms and physical examination findings. Defect directed repair of each site can restore pelvic floor function and ideally should be done at the same operation.

The presented data showed that TVT-O procedure efficacy when combined with POP surgery is as satisfactory as TVT-O procedure alone efficacy. These cure rates are also similar to cure rates obtained in other studies. (2-3)

Concluding message

In conclusion, USI in women with POP can be treated successfully with TVT-O procedure combined with appropriate POP repair.

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Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**