

THE EFFECT OF BODY MASS INDEX ON THE RESULT OF THE TENSION-FREE VAGINAL TAPE PROCEDURE IN PATIENTS WITH STRESS URINARY INCONTINENCE

Hypothesis / aims of study

Obesity has been known to a risk factor of urinary incontinence, in which body mass index (BMI) has the close relationship with stress urinary incontinence. As weight gain, the abdominal pressure increases and stress is exerted on pelvic floor, causing a damage to nerves, muscles and eventually it increase the risk of stress incontinence. The goal of this study is to evaluate the clinical outcome according to BMI on the result of Tension-free Vaginal Tape (TVT) for the surgical treatment of stress urinary incontinence.

Study design, materials and methods

We analyzed medical records and interviewed 31 women who were diagnosed with stress incontinence, progressed at least 6 months after TVT surgical treatment and possible to follow up. For all patients we asked the degree and duration of incontinence and past medical history. In all patient groups, the average age was 46.8 ± 8.4 , the average duration of symptom was 7.3 ± 8.0 years and the average BMI was 26.0 ± 3.5 kg/m², showing slightly over weighted measurement. The degree of incontinence was categorized according to Stamey classification, which had 16 patients with grade and 15 patients with grade , Also, posterior urethrovesical angle and bladder neck descent were measured by using perineal ultrasonography, and urodynamic study was performed including valsalva leak point pressure. The patients were classified as being of normal weight (BMI 20-25), overweight (BMI 26-30), and obese group (BMI >30). We compared postoperative satisfaction, subjective cure, and complication of each group that divided in regard to BMI. Subjective cure was defined as no incontinence during ordinary life after the surgical procedure. Satisfaction to surgery was assessed into 4 levels of very satisfactory, satisfactory, moderate and unsatisfactory. Also we further assessed subjective cure rate by asking the patient whether they would recommend the surgical procedure to other people.

Results

In each group, the cure rates were 87.5%, 88.9%, 83.3% ($p=0.844$), the very satisfactory rates were 25%, 22.2%, 33.3%, satisfactory rates were 62.5%, 66.7%, 50%, moderate satisfactory rates were 6.25%, 0%, 16.7% and unsatisfactory rates were 6.25%, 11.1%, 0%, in which did not differ significantly according to BMI. In regard of patients' recommendation of the surgical procedure to other people, there were 87.5%, 88.9%, 83.3% of patients who were willing to recommend in each group, not showing significant differences as well ($p=0.362$). For surgical complications, there were 2 cases of bladder neck injury and 1 case of abdominal hematoma in normoweighted group; 1 case of bladder injury and 1 case of urinary retention in overweighted group; 1 case of urinary retention in obese group, in which overall complication did not show significant difference statistically ($p=0.970$).

Interpretation of results

TVT procedure in stress urinary incontinence patients results in similar subjective cure rate, satisfaction rate and postoperative complications without any regards to BMI.

Concluding message

The TVT procedure is safe for the overweight and obese women and seems to be the adequate treatment in future.