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URINARY FLOW RATE STRONGLY PREDICTS THE OUTCOME OF TVT "TENSION-FREE VAGINAL TAPE" OPERATION IN URODYNAMIC STRESS URINARY INCONTINENCE (SUI)

Hypothesis / aims of study

Mid-urethral tension-free sling operations have become the first choice in the surgical treatment of SUI (1). But, there is still a group of patients who do not benefit from these operations. In this study, we aimed to find out variables which might predict the failure after a TVT operation.

Study design, materials and methods

Women with urodynamic SUI (n=48) who underwent TVT operation were included into this study. After a mean follow-up of 36 months (range 5-75) outcome was determined. Dry and wet patients were compared in terms of preoperative clinical and urodynamic findings such as age, child delivery rates, pelvic organ prolapse, history of pelvic or abdominal surgery, 24 hour pad test, the presence of mixed urinary incontinence (MUI), Q-tip test, abdominal leak point pressure (ALPP), bladder compliance, detrusor overactivity (DOA) and Body Mass Index (BMI). Statistical analysis was performed by chi-square, student T-test and one-way ANOVA where appropriate.

Results

The mean age of the patients was 55 years (range 35 – 79) and the failure rate of TVT was found to be 10.4 % (5 wet/48 dry patients). Number of dilatation and curettage operations performed for each patient and amount of urinary leakage was found to be significantly different between dry and wet patients in terms of various clinical findings mentioned before (Table). Preoperatively measured maximum and mean flow rate was the only significant urodynamic finding predicting failure after TVT (Table).

	Postoperative dry patients Mean ± S.D.	**Postoperative wet patients Mean ± S.D.**	**P Value**
	n= 43	n=5	
Age(years)	54±11	58±13	0.511
Number of D&C	1.5±1.7	4±4.7	0.019**
Q-tip(degree)	37±19.4	33±29.5	0.632
ALPP(cmH2O)	61±41	40±28	0.180
Bladder compliance(ml/cmH2O)	92±151	69±61	0.745
Preoperative MUI (%)	50	20	0.48
Preoperative DOA (%)	9.3	20	0.44
BMI	30,3±4,8	33,2±7,8	0,24
	n= 41	n=5	
Maximum volume leaked volume (gram)	33.37±40.4 (n=41)	168.4±212.7	0.000**
Urine leakage(gram)	112±168 (n=41)	395±443	0.006**
	n= 40	n=5	
Maximum flow rate at uroflowmetry	30±15.5	20±7	0.032**
Mean flow rate at uroflowmetry	16.6±8	10.6±4	0.035**

** p< 0.05 Significant

Interpretation of results

None of the risk factors found in the literature on the TVT seems to have a significant influence on prediction of failure for SUI in our study (2). Nevertheless there is also a noticeable difference between ALPP (cmH2O), Q-tip(degree) suggesting the importance of non-hypermobile urethra and low maximum urethral.

Concluding message

24 hour pad test and a simple uroflowmetric study appeared to be strong predictors of failure after a TVT operation.

References

1. Ward K, Hilton P. Prospective multicenter randomised trial of tension-free vaginal tape and colposuspension as primary treatment for stress incontinence. BMJ 2002; 325: 67.

2. P. Bakas, A. Liapis, G. Creatsas. Q-Tip Test and Tension-Free Vaginal Tape in the Management of Female Patients with Genuine Stress Incontinence. Gynecologic and Obstetric Investigation 2002;53:170-173

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HUMAN SUBJECTS: This study was approved by the Marmara University School of Medicine Ethics Committee and followed the Declaration of Helsinki Informed consent was obtained from the patients.