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A THREE-YEAR POSTOPERATIVE EVALUATION OF TENSION-FREE VAGINAL TAPE (TVT) ON 138 PATIENTS

Aim of the study

This study was to evaluate and to discuss the results on TVT procedure for genuine stress incontinence (GSI) started in our department on october 1996

Patients and methods

From October 1996 to June 1999 , 138 patients were operated for GSI by the TVT procedure The mean age was 60 57 years old (34-89) Of these patients 92 were never operated and 46 had one or more surgery for stress urinary incontinence and /or genital prolapse associated with incontinence All patients had stress urine leakage after bladder filling with 250 cc of physiologic serum A complete urodynamic work up was performed Mean uretral closure pressure was 47 28cm H_2O (12-120) 20 patients had intrinsic sphincteric defficiency (ISD) There were no statistical difference between closure pressure of patients who had previous operation for stress urinary incontinence and those who were to be operated for the first time ($p<0$ 05) The mean maximal flow rate was 26 86 ml/sec (1-87ml /sec) with 43 patients having a maximal flow beneath 20ml/sec The mean maximal bladder capacity was 454 47 ml (245-1000) 78 patients complained of bladder instability (frequency , urgency, urge incontinence) but only 6 were detected by urodynamic study
79 patients (57 24%) were obese 23 (16 7%) had weight excess
All patients were operated by the TVT procedure under local anesthesia as described 19 were associated with another procedure (6 sacral promontory fixation 6 vaginal prolapse repair, 3 posterior repairs and 5 rectoceles) When other procedures were associated ,TVT material was introduced and then the second procedure was done under general anesthesia The mean operating time was 30 minutes
After operation, a bladder residue measurement was done 76 patients had zero residue >100cc, 31 had one residue > 100cc, 31 had more than one residue > 100cc Only one patient experienced a urinary retention that resolved five days later All patients had antibiotics for the five days following the procedure (Norfloxacin)
The mean hospital stay was of 2 5 days (1- 9 days)
The patients were reexamined one month then six month then yearly after intervention

Results

Bladder perforation and post operative morbidity was not related to previous pelvic anti incontinence surgery 3 of the 46 patients with previous anti incontinence surgery (6 5%) had bladder perforation while 10 of the 92 remaining patients never operated had perforation None of the 46 patients had hematoma ,while 3 of the 92 patients had pelvic hematoma
The mean follow up was 21 23 months (4 - 41months)
At examination ,3 vaginal erosions were noted at 1 , 1 5 and 3 5 years post operation No infection was noted and the three patients had vaginal flap recovery with satisfactory results No material reject 96 37% were satisfied
90%(124) of patients were completely cured, 8 % (11) were ameliorated and 2% (3) failed Among the 20 patients with ISD, 18 were cured and 2 ameliorated.
Between the three patients experiencing failure one had pelvic radiotherapy for gynecologic cancer stiffening the urethra, the second had previous anti stress urinary incontinence procedure and the third had two bladder perforations during surgical procedure owing to an error in positioning of the tape. Obesity was not related with TVT failure although it may be an important factor in GSI
A videourodynamic study of urethral mobility was done showing no difference in mobility of the bladder neck before and after the procedure
Of the 78 patients complaining of clinical bladder instability, only 23 had persistant symptoms
Of the 43 patients complaining of dysuria, only 15 had post operative persistant symptoms

Conclusion

TVT procedure is safe , with low morbidity Success rate is satisfactory Patients are satisfied of continence results. In mixed urinary incontinence results are very good Bladder instability symptoms are cured in a great proportion of patients Previous anti incontinence surgery did not alter the results nor caused more morbidity
Obesity is not a factor of failure of the TVT TVT procedure may be associated with other operations an still may be done under local anesthesia At last pre and post operative uretral mobility was not changed by the procedure