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Title

TENSION FREE VAGINAL TAPE PROCEDURE (TVT): ITS IMMEDIATE IMPACT ON PATIENT COMFORT COMPARED TO FASCIAL SLING.

Aims of Study: Efficacy of anti-incontinence procedures is often achieved at the cost of surgical morbidity. The TVT procedure uses Prolene® mesh tape placed around the midurethra through a small vaginal incision to accomplish repair similar to fascial sling. The continence rates are comparable to sling procedures(1). In this study we compare perioperative complications, pain management and time to complete voiding in patients who underwent TVT and fascial sling procedures.

Methods: Since July 1998 thirty patients (mean age 64.3 years, SD=+/-13.8) underwent TVT procedure as a part of a multicenter study and 14 patients (mean age 61.7 years, SD=+/-10.6) fascial sling procedure for stress urinary incontinence (SUI). Patients' charts were reviewed to determine the type of anesthesia, surgical time, blood loss and intraoperative complications, the length of stay and the resumption of voiding. Questionnaires examined pain and discomfort after the procedure and use of opioids and catheterization. The two groups were compared using student t-test.

Results: The mean operative time was 40 minutes shorter and the estimated blood loss was 43ml less in the TVT group (Table 1). All patients in TVT Group were operated with local anaesthesia and sedation. The patients in the PVS group underwent general anesthesia (in 10), epidural (3) and spinal (1). There is statistically significant difference between mean hospital stay and resumption of normal voiding between the two groups (PVS 1.0 and 17.2 respectively, and in the TVT group 0.13 and 1.2).. The maximal pain on the scale 1 - 10 during the first 3 postoperative days averaged 4.9 in the fascial sling group and 2.9 in the TVT group. No or mild discomfort with the procedure was reported in 80% of TVT patients vs. 43% of PVS patients. The surgery was no or minimal inconvenience to 70% of TVT group vs. 43% of PVS group. The operating time, estimated blood loss (EBL), hospital stay, postoperative day patient voided, mean use of opioids per patient, and spontaneous urination summarized in Table 1.

Table 1: Comparison between TVT group and pubovaginal sling (PVS) group.

	OR time	EBL	Hospital Stay	Voided on POD	Max. pain	Codeine	Meperidine	Fentanyl	Propoxyphene
PVS	79	79 ml	1	17.2	4.9	66 mg	115.9 mg	30 µg	540 mg
TVT	39	36 ml	0.13	1.2	2.9	48 mg	7.5 mg	15 µg	200 mg
p value	<0.05	<0.05	<0.05	<0.05	<0.05	0.54	<0.05	0.1	0.06

Conclusions: In our experience the TVT procedure is shorter and less painful and less morbid than fascial sling. It requires less anesthesia and opioid analgesia. Most patients do not require urinary diversion postoperatively. Patients' perception of pain and discomfort is minimal.

Reference:

1. Ulmsten U, Henriksson L, Johnson P, Varhos G: An ambulatory surgical procedure under local anesthesia for treatment of female urinary incontinence. *Int Urogynecol J* 7: 81-86, 1996