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**Title:** THE EFFECT OF AGE AND TIME ON THE OUTCOME OF TVT SURGERY

### **Aims of study:**

To evaluate cure rates in different age groups during a 5 years follow-up period after TVT surgery for treatment of female stress urinary incontinence.

### **Methods:**

The study population consisted of 85 consecutive patients, who suffered from urodynamically proven genuine stress incontinence and had a Tension-free Vaginal Tape (TVT) operation performed. The study was

prospective and included the following pre- and postoperative evaluation: urodynamics, a stress test, a 24-hour

pad-test, residual urine measurements, urine analysis, gynecological examination and a quality of life assessment using a calibrated visual analog scale (VAS) where 0 represents no urinary problems and 100 unbearable symptoms. The TVT operation was carried out in local anesthesia as described earlier (1). The patients were evaluated at 1,2,3,4 and 5 years after the TVT operation. The criteria for cure were a negative stress test, a negative 24 h pad-test (<8g/24h) and a score less than 10 on the VAS. To be regarded as improved the patients had to have a significant reduction in urine loss in the 24 h pad-test (>50% reduction and/or <15g/24h urine loss) and a  $\geq 70\%$  decrease in their preoperative incontinence problems on the VAS.

All other patients were regarded as failures. All women gave informed consent and the study was approved by the ethic committee of the institution.

### **Results:**

The median follow-up time was 56 months (range 48-70). All patients were seen at the 1,2,3 and 4 years follow-up visit. Twenty-six patients were seen between 60 and 70 months postoperatively. The median age of the patients was 57 years (range 40-91). The number of patients in the different age groups were 14 patients

<50 years, 38 patients 50-59 years, 15 patients 60-69 years and 18 patients >70 years. The Table shows the rates of cure, improvement and failure in the different age groups.

Age group	CURED at 1 year	2 years	3 years	4 years	5+ years
50	100%	92.8%	92.8%	85.7%	85.7%
50-59	97.4%	92.1%	92.1%	89.5%	81.3%

At 4 years the cure rate was 84.8% in the total material, 10.5% were significant-improved and 4.7% were failures. Among the 26 patients who were seen after 5 or more years the rates of cure, improvement and failure were

60-69	100%	100%	93.3%	80.0%	100%
70	88.9%	88.9%	83.3%	77.8%	100%

improvement and failure were 84.6%, 15.4% and 0% respectively.

Age group	<b>IMPROVED</b> at				
	1 year	2 years	3 years	4 years	5+ years
<50	0.0%	7.1%	7.1%	14.3%	14.3%
50-59	2.6%	7.9%	5.3%	7.9%	18.6%
60-69	0.0%	0.0%	2.6%	2.6%	0.0%
70	11.1%	11.1%	11.1%	11.1%	0.0%

### **Conclusions:**

The overall long-term cure rate of around 85% compares well with those of the most effective more invasive traditional procedures (2). Although cure rates are slightly lower in the oldest age group >70 years, the figures are still encouraging. Invasive incontinence procedures is a concern in the oldest age groups. The long-term cure rates of minimally invasive procedures as needle suspensions and peri-urethral injections are reported to

Age group	<b>FAILURE</b> at				
	1 year	2 years	3 years	4 years	5+ years
50	0.0%	0.0%	0.0%	0.0%	0.0%
50-59	0.0%	0.0%	2.6%	2.6%	0.0%
60-69	0.0%	0.0%	0.0%	6.7%	0.0%
70	0.0%	0.0%	7.7%	15.3%	0.0%

fall below 50% (3,4). The cure rate of close to 80 % in the oldest age group of the present study of the minimally invasive TVT procedure suggests that the Tension-free Vaginal Tape operation should be considered as the primary choice of surgical treatment of stress urinary incontinence in elderly women

### **References:**

- 1) Int Urogynecol J 1996;7:81-86
- 2) Br J Obstet Gynaecol 1994;101:371-374
- 3) Am J Obstet Gynecol 1995;173:66-71
- 4) Br J Urol 1992;69:265-267