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## **COMPARISON OF SPARC AND TVT IN TREATING URINARY INCONTINENCE**

### **Aims of Study**

Do SPARC and TVT insertion of prolene tape for treating urinary incontinence yield similar results irrespective of the different routes of access of the two procedures when they are used for identical indications?

### **Methods**

A hundred women operated on for stress urinary incontinence were included in a retrospective study. The SPARC procedure was employed in 50 women and TVT insertion in the other 50. Inclusion criteria were symptoms of pure stress urinary incontinence or mixed incontinence and urodynamically proven urethral insufficiency. Fifty percent (n=25) of the women in each group had already undergone prior prolapse or incontinence surgery. All patients underwent peri- and postoperative introital ultrasound, gynecologic examination, and urodynamic testing. Tape insertion alone was performed under local anesthesia, combined procedures under intubation anesthesia. All operations were performed by the same physician. Groups were compared using the Gehan-Wilcoxon test.

### **Results**

No perioperative complications occurred in the TVT group. Only two women (4 %) had postoperative urinary tract infection. In the SPARC group there was inadvertent urethral perforation in one case and another woman showed more profuse bleeding from the vagina after the intervention. Postoperative bladder emptying no later than 6 hours after tape insertion was possible in all women and there were no differences between the two groups. De novo urge symptoms occurred in 5 women (10 %) of the TVT group who had undergone prior surgery while they were seen in the SPARC group in 8 women (16 %) with tape insertion alone and in 2 women (4 %) with repeat intervention. The technique of insertion affected the tape position. Introital ultrasound showed that the TVT tapes were significantly more often located in the middle third ( $p < 0.05$ ) while the SPARC tapes were identified more distally. No residual urine was present in any of the patients. The duration of the intervention was not significantly different between both groups. The cure rate at 12-week postoperative follow-up was 87.3% (n=44) in the SPARC group and 85.9% (n=43) in the TVT group.

### **Conclusions**

Both tapes show similar cure rates in identical indications. When the intervention is performed by an experienced operator, the number of complications is negligibly low in both groups. However, bladder perforation in TVT insertion is certainly easier to manage than urethral perforation in SPARC insertion. Intermediate and long-term data on tape position determined by ultrasound in relation to the development of urge symptoms in both groups as well as long-term cure rates remain to be established.