

## **COUGH STRESS TEST DURING THE TENSION-FREE VAGINAL TAPE PROCEDURE: IS IT NECESSARY?**

### **Aim of Study**

To compare postoperative outcomes for the TVT procedure between patients who were and were not able to provoke urinary leakage during tape adjustment.

### **Methods**

Ninety-three women with demonstrable stress urinary incontinence underwent the TVT procedure. Group A consisted of forty-six women who, through coughing, provoked urinary leakage during surgery. Of these patients, twelve underwent the procedure with local anesthesia and thirty-four with regional anesthesia. Group B consisted of forty-seven women who did not successfully provoke urinary leakage during surgery. Of these women, seven underwent surgery with local anesthesia, thirty-five under regional anesthesia, and five under general anesthesia. Postoperative outcome was measured by urinary leakage and urinary voiding difficulty scales six months to one year after surgery.

### **Results**

40 (86.9%) patients in Group A, and 39 (83%) the patients Group B reported that they never or very rarely experienced urinary leakage after the operation when sudden intra-abdominal pressure was applied. No statistical difference was found between these two subject groups on this parameter.

When asked about postoperative voiding difficulties, 36 (78.2%) of the patients in Group A reported having no difficulties voiding, while 10 (21.7%) reported having mild voiding difficulty. Similarly, 41 (87.2%) in Group B reported no postoperative voiding difficulties, while 6 patients (12.7%) in this group complained of mild voiding difficulties. For this second parameter, there was no statistical difference found between these two groups

### **Conclusions**

Correct placement of the tape is crucial to the success of the TVT procedure. The tape must stabilize the urethra and prevent it from moving during sudden increases in intra-abdominal pressure typically caused by coughing, sneezing, or laughing. In the event that the surgeon does not pull the tape tightly enough, the support may not prevent urinary leakage during sudden increased pressure. If the tape is pulled too tightly against the urethra, voiding difficulties, or in severe cases, urinary retention may occur.

Our results clearly demonstrate that even when no intraoperative urinary leakage information is provided by the patient's coughing, the surgeon can successfully place the TVT under the mid-urethra by pulling the tape until there is a distance of approximately five millimeters between the tape and the urethra. This distance has been shown to prevent both leakage when sudden intra-abdominal pressure is applied as well as postoperative voiding difficulties. These postoperative success rates are similar to those obtained with intraoperative patient cooperation.