

## **PREDISPOSING FACTORS OF POSTOPERATIVE URINARY TRACT INFECTION AFTER TENSION-FREE VAGINAL TAPE (TVT) PROCEDURE FOR FEMALE URINARY INCONTINENCE**

### **Hypothesis / aims of study**

The tension-free vaginal tape (TVT) procedure has been performed worldwide for the treatment of female stress urinary incontinence. Occurrence of urinary tract infection (UTI) after TVT procedure is usually temporary, but sometimes exists persistently. In this study, we intend to find out the frequency of urinary tract infection and whether there exists any factors affecting the persistence of urinary tract infection after TVT procedure.

### **Study design, materials and method**

A total of 306 patients who underwent TVT procedures were retrospectively reviewed from 2000 to 2003. All patients had preoperative urodynamic studies and urine cultures. TVT procedures was done by one surgeon. Postoperatively, uroflowmetry, urine culture and symptom questionnaire were repeated at 1 to 4 weeks, and 3 months. Clinical and laboratory data were compared between UTI group (99 cases) and non-UTI group (207 cases).

### **Results**

Of the total, 120 patients (39.2%) developed pyuria at postoperative 1 to 4 week urinalysis. In 60 patients (50%) of these, pyuria was subsided after the antibiotic administration by the postoperative 4 weeks. On the postoperative 3 months, 99(32.3%) patients still showed pyuria(UTI group): At urine culture, there were E-coli growth in 61(61.6%), Enterococcus in 6 (6%) and Streptococcus in 3 (3%). The frequency of pyuria during postoperative 1-4 weeks was not different between two groups. There were no significant differences in the demographic and clinical data between two groups. Amount of the postvoid-residual urine was greater in the UTI group than in the non-UTI groups( $p<0.03$ ). There was no difference for the coexistence of the pelvic organ prolapse or postoperative results between two groups.

### **Concluding message**

With this results, it may be suggested that the increased post-void residual urine after TVT procedure has a tendency to cause UTI. Transient pyuria after TVT procedures may be a common findings. However, the persistence of pyuria 3 months after TVT procedures may be correlated with voiding difficulty caused by excessive tension of the tape.