

## **ARE TVT POLYPROPYLENE SLINGS COLONIZED BY MUSCULAR FIBERS ? AN HISTOPATHOLOGIC EVALUATION OF RESECTED TAPES FOR VOIDING DYSFUNCTION**

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

Tension Free Vaginal Tapes (TVT) made of polypropylène mesh are increasingly used in the treatment of female stress urinary incontinence (SUI). It is claimed by the manufacturer that the tape will be over time colonized by muscular fibers which will add their own effect to the simple mechanical suspension of the distal urethra. This study was undertaken to check this hypothesis.

### **Study design, materials and methods**

15 consecutive patients submitted to a TVT for SIU and suffering from voiding dysfunction (obstruction/de novo emergency) were treated by tape resection, 6 to 40 month after implantation. The resected tapes were submitted to hispathologic evaluation using standard stain (HPS) and immunohistochemistry (vimentin, actin, CD8) to detect the presence of fibroblast and muscle fibers.

### **Results**

Fibroblast and macrophages were detected around the fibers of every tape in a quantity inferior to what is normally seen in foreign body inflammatory reaction. 13/15 tapes were colonized b muscular fibers considered to be rare to abundant with no special relationship between the duration of implantation and the number of fibers.

### **Concluding message**

This study shows that indeed TVT meshes are colonized by muscular fibers and induce only a limited inflammatory reaction. This explains the good tolerance usually observed. The exact contribution of muscular fibers to the recovery of continence remains to be investigated.