

## **SPARC-SYSTEM FOR TREATMENT OF FEMALE STRESS URINARY INCONTINENCE**

### **Aims of Study**

Incontinence poses a significant problem for 10% of the female population with significantly negative effects on the patient's quality of life. The procedure's goal includes the treatment of stress incontinence as well as the improvement of quality of life. This prospective study was done to evaluate the efficacy and safety of the SPARC-system as a treatment for female stress urinary incontinence.

### **Methods**

59 female patients with an average age of 60.1 years (36-91) and a mean follow-up of 320 days participated in this prospective study. The operations were performed using the SPARC procedure during workshops. 45 patients had genuine stress incontinence, 8 had recurrent stress incontinence and 6 had mixed incontinence. 44 patients had relevant pre-operations (33 patients had a previous operation in the small pelvis, 11 patients previously underwent incontinence operations). The average number of children was 2.3. 53 women had multiple births; 6 women without children. The duration of incontinence was on average 9.2 years. The diagnoses were established through anamneses, uro-gynecologic examinations, stress tests, pad tests, urodynamic testing and voiding diaries. 44 of the women (74.6%) had general anesthesia, 15 women (25.4%) had an epidural anesthesia.

### **Results**

The average procedure time was 48.9 (30-94) minutes (on workshop basis). Four (6.8%) patients had bladder perforations. One patient experienced post-procedure difficulties emptying the bladder; one experienced "tape gliding" which was remedied by easing the tape and re-connection of the tape. Other complications were not seen. The numbers of pads, the pad test, and the bother score were reduced from 4.6, 27.96g, 73 pre-procedure to 0.42, 1.05g, 14.4 three months post-procedure and to 0.38, 0.85g and 14.4 six months post-procedure. This was statistically highly significant.

56 (94.9%) women regarded themselves as continent. The objective, complete dryness is 85.5% after three months and 91.2% after six months. 14.5% after three months and 8.8% after six months showed significant improvement.

### **Conclusions**

The short-term results of the first SPARC study are comparable with the results shown with the TVT method. The advantages of the SPARC method lie in the optimal anatomical reference points and the significantly better technologies (instruments), which improve the accuracy of the tape placement and the safety of the patient. We performed the SPARC-procedure on workshop basis and therefore the average operating time is longer than usual. The bladder perforation rate reflects also the workshop style, but a bladder perforation causes no morbidity, you have to detect and correct it. The existing experiences, in comparison to the TVT method, cause us to choose the SPARC method as the method of choice for treatment of female stress incontinence.