

THE SPIRAL SLING SALVAGE ANTI-INCONTINENCE SURGERY FOR THE FEMALE PATIENT WITH A NON-FUNCTIONAL URETHRA: OUTCOMES DETERMINED BY PATIENT DRIVEN QUESTIONNAIRES

Hypothesis / aims of study Female patients with urethral incompetence and severe incontinence from multiple failed anti-incontinence surgeries are a unique surgical challenge. Posterior urethral support alone is insufficient for continence. These patients constitute 3% of all patients requiring anti-incontinence surgery in our referral practice. Urethral closure and continent diversion are often the next step. We present a technique that provides circumferential coaptation of the urethra as a salvage procedure in this severe subset of patients.

Study design, materials and methods A 1x16cm piece of soft prolene mesh is prepared with a 0-polyglactin suture applied at each end. Two lateral oblique incisions are made in the anterior vaginal wall. The dorsal aspect of the urethra is freed from the pubis. A Satinsky clamp is used to pass the mesh between the urethra and pubis. A tunnel is made between the urethra and vaginal wall and the ends of the mesh are crossed at the ventral aspect of the urethra creating a complete circle around the urethra. The sutures are transferred to the suprapubic area and tied without tension. We prospectively evaluated 52 patients who had a spiral sling from 8/1999 to 9/2004. Preoperative evaluation included history and physical, stress test, videourodynamic study, cystoscopy, and patient self-assessment by questionnaires. Patients were followed with a standardized symptom questionnaire, the Urogenital Distress Inventory, and a quality of life question

Results The mean age of our patients was 59 years. At presentation, patients had undergone a mean of 2.6 (range 0 to 9) incontinence procedures and wore a mean of 5.9 pads per day. All patients were considered candidates for urethral closure and continent diversion. Pre-operatively the mean severity and bother score from SUI symptoms was 2.8 and 2.7, respectively (0=none, 3=severe). Post-operatively these numbers decreased to 0.7 ($p<0.005$) and 0.8 ($p<0.005$). Mean daily pad use decreased to 1.7 ($p<0.005$). There was a dramatic improvement in quality of life with patients reporting a mean overall improvement of 78%. The de novo urge incontinence rate was 8%. 3 patients required eventual bladder neck closure and continent diversion for persistent incontinence, urethrovaginal fistula, and urethral necrosis.

Interpretation of results There was a dramatic improvement in quality of life with patients reporting a mean overall improvement of 78%. The de novo urge incontinence rate was 8%. 3 patients required eventual bladder neck closure and continent diversion for persistent incontinence, urethrovaginal fistula, and urethral necrosis.

Concluding message The spiral sling is an effective salvage transvaginal procedure that may be considered for a small subset of female patients with non-functional urethras as a last resort prior to urethral closure procedures.

