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SHORT-TERM ASSESSMENT OF CONTINENCE AFTER BONE ANCHORED SLING PLACEMENT IN MALE BULBAR URETHRA

Aims of Study

The sphincteric male incontinence (SMI) affects a substantial number of patients undergoing radical prostatectomy (RP) and occasionally transurethral resection of prostate (TURP). Up to now, several treatment options for SMI have been described, such as indwelling urethral catheter, external collecting device, penile clamp, transurethral bulking agent, artificial urinary sphincter and recently a bulbourethral sling that is suspended above the rectus fascia. We are presenting the short-term results for continence after bone anchored sling placement in males affected by sphincteric incontinence.

Methods

A total of 15 patients, previously undergoing radical retropubic prostatectomy (RRP) in 9 cases (60%) and TURP in 6 cases (40%), aged between 59 and 81, (mean age of 70.07 years, mean SE 1.78, SD 6.89) underwent bone anchored sling placement for SMI. All the patients were preoperatively evaluated with a detailed clinical history, physical examination, cystourethroscopy for possible anastomotic or urethral stricture, urinary flow, cystometry to assess the bladder compliance and the presence of any overactive detrusor contraction (ODC), abdominal leak point pressure (ALPP), urethral pressure profile (UPP). The surgical technique recently reported by others consisted in a perineal approach with the placement of a trapezoid segment of sling (lower lenght 5.5 cm, upper length 4 cm and 4 cm high) at the level of the bulbar urethra (1). In our series the sling was constituted of cadaveric fascia alone in ten cases (66%), of cadaveric fascia plus polypropilene mesh in two cases (13.3%), of a cellular porcine dermal collagen plus polypropilene mesh in two cases (13.3%) and of dacron in one case (6.7%). The sling tension was adjusted to create an outflow resistance of 30 to 50 cm H2O. The catheter was removed the next morning for voiding attempt. Follow-up was done at 6 weeks and successively every 3 months with the reassessment of physical examination, 1-hour pad test, as standardized by ICS in 1983, of cystometry, of ALPP and urinary flow. A Wilcoxon test was carried out to verify any statistical difference between preoperative and postoperative ALPP.

Results

The mean follow-up was 18.3 months (mean SE : 5.31 – SD : 20.55). The patients resulted dry in 8 cases (53%), improved in 4 cases (26%) while in 3 cases the treatment failed (20.0%). In all patients the preoperative maximum closure urethral pressure (MCUP) was unchanged in comparison with the postoperative MCUP as the detrusor compliance and the Qmax. The positivity for ALPP was the only urodynamic parameter that changed postoperatively with significant difference (preoperative ALPP = mean 44.20 cm H2O – mean SE : 4.74 cm H2O – SD 18.37; postoperative ALPP = mean 91.47 cm H2O – mean SE : 9.20 – SD 35.62) (P= .001).

Conclusions The postoperative urodynamic data seems to indicate that the mechanism of action of the sling mainly consists in an increase of valsalva leak point pressure rather than costant passive urethral compression. This mechanism is probably similar to the mode of action of the pubovaginal sling used to treat female stress incontinence even if further experience is nedeed to establish the true mode of action of this device.

References

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