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Athanasopoulos A[1], Gyftopoulos K[2], McGuire E[3]
1. *University of Michigan Medical Center, Department of Urology, Ann Arbor, USA and Department of Urology, University of Patras, Patra , Greece,* ***2.*** *Department of Anatomy, University of Patras, Patra, Greece,* ***3.*** *University of Michigan Medical Center Department of Urology, Ann Arbor, USA*

Efficacy of the autologous fascia rectus sling for the treatment of Stress Urinary Incontinence in neuropathic female patients.

Hypothesis / aims of study

The aim of this study was to evaluate the efficacy of the autologous fascia rectus sling in treating female stress urinary incontinence in patients with neuropathic bladder. Post-operative surgical complications and re-operations were also recorded. Furthermore, correlations between preoperative parameters and outcome were evaluated.

Study design, materials and methods

We retrospectively reviewed operative logs from a single surgeon (EM) of 33 female patients with neuropathic bladder treated over a 3-yr period for stress urinary incontinence by implantation of a free autologous fascia rectus sling (1). The purpose of the operation was to induce complete obstruction so that the patient can be managed with self-intermittent catheterization. When high pressures or low compliance was detected during fluoroscopic urodynamic preoperative evaluation, the operation was combined with augmentation cystoplasty or myectomy.

Preoperative incontinence severity was quantified by the number of pads used per day and stratified as mild (0 to 1 pads per day), moderate (2-4 pads) and severe (5 or more pads). Efficacy was evaluated objectively by the number of pads used per day. Persistent or recurrent urethral incontinence was recorded as “failure” and was defined as leakage requiring >1 pad per day during follow-up. The use of 1 pad per day was defined as “improvement” only if this represented a reduction in pad use greater or equal to 50% and, additionally, was reported as “satisfactory” by the patient. “Cure” was defined as no leakage per urethra. Subjective patient satisfaction was also recorded, using a global assessment question. Possible correlations between age, obesity, pre-operative Valsalva Leak Point Pressure (VLPP) and outcome were investigated.

Results

The mean age of the patients was 37 yrs (range: 10-67) while the mean follow-up time was 52 months (range: 12-62). Causes of neuropathic bladder were myelomeningocele in 21 (63.63%) and spinal cord injury in 12 patients (36.36%). Additional surgery included augmentation cystoplasty in 14 patients (42.42%) and myectomy in 3 (9.1%). A total of 30 patients were successfully treated (*cured+improved*) and satisfied with the outcome of the operation (90.9%). 25 patients (75.75%) were totally dry while 5 patients (15.15%) were markedly improved but still required one pad per day. Failure was encountered in only 3 patients (9.10%) in the group of severe incontinence. The complication rate was 15.20%. Sling erosion, vesicovaginal fistula and urethral stenosis occurred in one patient each and required re-operation (3/33, 9.10%) while 2 patients developed bladder overactivity. Statistical analysis failed to show any correlation between the final outcome and the following parameters: patient age, existence of obesity, pre-operative VLPP and severity of incontinence.

Interpretation of results

This technique according to our results is very effective in treating female stress incontinence in patients with neuropathic bladder. Interestingly, the patient’s satisfaction percentage matched the combined “cure plus improvement” percentage. The complication rate is acceptable with mild to moderate morbidity. We did not identify any preoperative prognostic factor.

Concluding message

The free autologous rectus fascia sling is an effective technique with acceptable morbidity for the treatment of female stress incontinence in patients with neuropathic bladder.

References

1. Kubic K, Horbach NS (2003) Suburethral sling procedures and treatment of complicated stress incontinence. In: Bent AE, Ostergard DR,Cundiff GW, Swift SE, editors. Ostergard’s urogynecology and pelvic floor dysfunction. Philadelphia: Lippincott, Williams & Wilkins; p. 468-493.

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Is this a Randomised Controlled Trial (RCT)?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
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Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**No**