

Oral presentation

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## Bladder mucosal cuff urethral lengthening – a modification of Kropp procedure

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### Background

Management of urethral incontinence in patients with a neuropathic bladder remains a surgical challenge. If surgery is deemed necessary then the ideal procedure achieves dryness with the ability to perform urethral catheterisation either as the chosen route for bladder drainage or as an alternative to stoma catheterisation. The Kropp procedure and its modifications is difficult and has varied reported results. We describe our experience with bladder mucosal cuff lengthening of the urethra at the time of augmentation.

### Materials and methods

The bladder is opened in the saggital plane. Adrenaline 1:100,000 is infiltrated under the mucosa that lies distal to the ureteric orifices down to the bladder neck. This mucosa is elevated as far as the upper urethra. The funnel shaped cuff is implanted under the mucosa between the ureteric orifices and distally is covered by a wrap of detrusor muscle.

### Results

We have performed this procedure in 10 patients (6 females and 4 males) with a mean age of 11 years (range 6 y 9 m–15 yr 3 m). The neuropathic bladder was secondary to spina bifida in 8 cases, and transverse myelitis in 2. Preoperative urodynamics revealed a poorly compliant bladder in 9 with leakage at a mean filling volume of 138 mls (15–390). In all patients an augmentation procedure was performed, and in 8 cases a Mitrofanoff stoma was established. At a mean follow-up of 14.9 months (2–26 months), 9 patients are dry urethrally (1 with an indwelling stoma catheter overnight). All the patients are on intermittent catheterisation 3–4 hourly. Two patients

catheterise urethrally by choice. One boy developed problems with stoma catheterisation and relief was achieved by the urethral route. In 1 patient the procedure failed to achieve continence.

### Conclusion

Bladder mucosal cuff lengthening of the urethra may be superior to the Kropp procedure for achieving urinary continence in patients with a neuropathic bladder. Catheterisation by the urethral route remains possible and for some patients may be the route of choice.