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Abstract

AIMS:

A retrospective analysis of our seven-year experience with the Memokath urethral stent for the treatment of detrusor sphincter dyssynergia (DSD) in spinal cord injured (SCI) patients.

PATIENTS AND METHODS:

Twenty five patients with SCI underwent rhabdosphincter Memokath stent insertion. The mean age was 45.5 years (range 32-65 years). The level of injury was cervical in 14 and thoracic in 11 patients. All patients were shown to have neurogenic detrusor overactivity with DSD associated with high detrusor pressures and incomplete emptying on pre-operative video-cystometrograms (VCMG). The Memokath stent was inserted using a standardized protocol. Follow-up assessment included blood chemistry, ultrasound scan (upper tracts and residual urine) at one and three months after insertion, and a follow-up VCMG at six months. The pre-operative and six-month post-operative VCMG results were analysed by the paired t-test and p value <0.05 was taken as significant.

RESULTS:

There was a significant reduction in maximum detrusor pressure, duration of contraction and residual urine volume (p<0.05) on the VCMG six months after insertion of the stent. At present six patients have a Memokath stent in situ at a mean of 34.7 months (range 6-86 months). Nineteen stents were removed for several reasons at a mean of 20.3 months (range 0.25-41 months). These include, exacerbation of autonomic dysreflexic symptoms (n=3); stent migration (n=7); encrustation and stone formation (n=5); incomplete bladder emptying without obstruction (n=3); entrance into fertility program (n=1).

CONCLUSION:
The Memokath stent is safe, easy and quick to insert with minimal trauma to the urethra. It is effective in the management of DSD and decreasing the detrusor pressure and residual urine volume in SCI patients. Moreover the ease of its removal in a non-traumatic fashion makes this stent an attractive option when patients are still contemplating the method of bladder management, in those wishing to be involved in fertility program and in recently SCI patients who may recover some manual dexterity to perform clean intermittent self-catheterisation. It must be remembered that this is a temporary stent, as our study clearly shows that the majority are removed within two years of insertion.