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## **Memokath stents for the treatment of detrusor sphincter dyssynergia (DSD) in men with spinal cord injury: the Princess Royal Spinal Injuries Unit 10-year experience.**

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### **Abstract**

#### **STUDY DESIGN:**

Medical records review.

#### **OBJECTIVE:**

To assess the effectiveness of the Memokath (Engineers and Doctors A/S, Denmark) thermosensitive stent as a 'nondestructive' means of reducing bladder outlet resistance by treating detrusor sphincter dyssynergia (DSD) of neurogenic bladder dysfunction associated with spinal cord injury.

#### **SETTING:**

Spinal Injuries Unit, Sheffield, England.

#### **METHODS:**

A medical records review was performed to examine our experience of Memokaths over the last 10 years. During this time, 29 patients with spinal cord injury (17 tetraplegic and 12 paraplegic) underwent stenting of the external urethral sphincter either for prevention of dysreflexic symptoms, high residual urine volumes and subsequent urinary tract infection (UTI) or for protection of the upper tracts.

#### **RESULTS:**

A total of 33 stents were inserted into 29 men (25-77 years) with suprasacral spinal cord injury. Initial results showed that the Memokath was effective in almost all for relief of dysreflexic symptoms and elimination of DSD on pressure flow urodynamics. However, to date, 30 of the 33 stents have been removed. The overall mean working life of the Memokath was 21 months. Four stents were removed electively and 23 for complications, which included stent migration (seven) and blockage (14). Single-ended stents were more prone to migration, which was rare after 1 year (1-13 months, median 3 months, mean 5.5 months). Stent blockage by encrustation or prostatic ingrowth did not occur before 12 months (12-45 months, median 30, mean 27.9 months).

#### **CONCLUSIONS:**

In selected patients, temporary, thermo-expandable (Memokath) stents are effective in the treatment of DSD. The 'working life' of a Memokath stent is 21 months; however, complications do occur which may

necessitate removal. Our overall experience with Memokath stents was disappointing. In future, Memokath stents will only be inserted after careful consideration in patients with prior 'failed' transurethral sphincterotomy or with caution in patients suitable for reconstructive surgery.