

[BJU Int.](#) 2002 Aug;90(3):216-23.

Thermo-expandable intraprostatic stents in bladder outlet obstruction: an 8-year study.

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Abstract

OBJECTIVE:

To assess the use of a thermo-expandable intraprostatic stent (Memokath(R), Engineers and Doctors A/S, Copenhagen, Denmark) for bladder outlet obstruction in men unable to undergo transurethral resection of the prostate (TURP), assessing symptoms, complications and duration of stent life.

PATIENTS AND METHODS:

The Memokath stent is a coil of a nickel-titanium alloy which has 'shape memory', the lower end expanding when heated to 55 degrees C. Risks associated with inserting the stent with a flexible cystoscope under local anaesthesia are minimal. Men were selected who were either permanently or temporarily unfit for TURP. Indications included severe respiratory and cardiovascular disease. Exclusion criteria included bladder carcinoma, calculi or detrusor failure; in all, 211 men were fitted with 217 intraprostatic stents over 8 years.

RESULTS:

There were 1511 TURPs during the study period; the mean age of men receiving a stent was 80.2 years, compared with 70.2 years for those undergoing TURP. The International Prostate Symptom Score decreased from a mean of 20.3 to 8.2 ($P < 0.001$) in the first 3 months after stent placement; there was virtually no change over 7 years. During the follow-up, 38% of men died with their stents in situ, 34% remain alive, 23% have had their stents removed for failure and 4% were removed as they were no longer required. There was a 13% migration rate and 16% repositioning rate. There were few side-effects (pain 3%, haematuria 3%, incontinence 6% and infection 6%). These frail men were more likely to die than have their stent fail.

CONCLUSION:

The Memokath intraprostatic stent is a valuable addition to the armamentarium of the urologist treating elderly or frail men with advanced bladder outlet obstruction and complements existing technologies.