

[J Urol](#). 2013 Jul;190(1):130-6. doi: 10.1016/j.juro.2013.01.014. Epub 2013 Jan 9.

Effect of a temporary thermo-expandable stent on urethral patency after dilation or internal urethrotomy for recurrent bulbar urethral stricture: results from a 1-year randomized trial.

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Abstract

PURPOSE:

The long-term success rate of dilation and/or internal urethrotomy is low in cases of recurrent urethral stricture. We investigated the ability of the Memokath™ 044TW stent to maintain urethral patency after dilation or internal urethrotomy for recurrent urethral stricture.

MATERIALS AND METHODS:

A total of 92 patients with recurrent bulbar urethral strictures (mean length 2.7 cm) were treated with dilation or internal urethrotomy and randomized to short-term urethral catheter diversion (29) or insertion of a Memokath 044TW stent (63). The primary end point was urethral patency, as assessed by passage of a calibrated endoscope. Secondary end points included urinary symptoms and uroflowmetry parameters. Stents were scheduled to remain in situ for 12 months.

RESULTS:

The rate of successful stent insertion was 93.6% (59 of 63 patients). In stented patients patency was maintained significantly longer than controls (median 292 vs 84 days, $p < 0.001$). Patency was reflected in significantly improved uroflowmetry and symptom scores. The stent was removed in 100% of patients. The most frequently noted side effects in stented patients were bacteriuria, hematuria and penile pain, which were usually mild and transient. There was no difference in sexual function between stented and control patients. Stent dislocation and occlusion were observed in 8 and 3 patients, respectively.

CONCLUSIONS:

Patients with recurrent bulbar urethral strictures treated with dilation or urethrotomy and a Memokath 044TW stent maintained urethral patency significantly longer than those treated with dilation or urethrotomy alone. The stent side effect profile was favorable. The stent was straightforward to insert and it was removed without difficulty even after long-term placement.

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