

## **Single versus double ureteral stenting after laser endoureterotomy for the management of benign ureteral strictures: A randomized clinical trial**

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### **ABSTRACT**

*Objective:* Endoureterotomy is a viable option for treating benign ureteral stricture. We compared the efficacy and safety of double versus single ureteral stenting after laser endoureterotomy.

*Patients and Methods:* This study included 55 patients with benign ureteral strictures; all patients underwent retrograde laser endoureterotomy. Patients were randomized either to single or double ureteral stents. 27 ureters were stented with a single stent while 28 ureters were stented with double stents. The stents diameter used were 7 Fr. and were kept indwelling for 8 weeks. Imaging was performed one month after stent removal and repeated regularly every 3 months. Clinical characteristics, operative results and functional outcomes were compared for strictures treated in both groups. Success was evaluated both subjectively and objectively

*Results:* Fifty five patients with a mean age 46 (16 - 75) years had benign ureteral strictures; the mean stricture length was 1.92 (1 - 3) cm. The mean follow-up was 25.7 (9 - 42) months. The overall success rate was 67.3% (37 patients) with no radiological evidence of obstruction, 6 cases (10.9%) showed symptomatic improvement while 12 cases (21.8%) underwent surgical reconstruction. Success was significantly higher for ureteral strictures (>1.5 cm) managed with double stenting (82.4%), compared to single stenting (38.9%) with  $P$ -value 0.009.

*Conclusions:* Double stenting of the ureter after laser endoureterotomy achieved higher success rate compared to single stent in cases of benign ureteral strictures. Although Ureteral strictures ( $\leq 1.5$  cm) achieved better outcome after laser endoureterotomy, strictures (>1.5 cm) favored better with double stenting versus single stent.