Long-Term Outcomes of Two Ipsilateral vs Single Double-J Stent After Laser Endoureterotomy for Bilharzial Ureteral Strictures

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Abstract

Background: Laser endoureterotomy became a preferable choice for managing benign U reteral strictures. Ureteral stricture caused by bilharzias is characterized by focal destruction of ureteral musculature, ending by fibrosis, making it poor responder to endo-ureterotomy. There is no consensus about the ideal ureteral stent size after endoureterotomy. However, many researches recommend larger stents caliber (12–14F).We assess long- term efficacy of insertion of two ipsilateral Double-J stents vs single Double-J stent after laser endoureterotomy for bilharzial ureteral stricture.

Materials and Methods: Within 4 years, 70 patients underwent retrograde laser endoureterotomy for bilharzial ureteral stricture (diagnosed by positive history of bilharziasis, positive serology test, and/or bilharzial cystoscopic finding). Patients with history of stone, urologic or pelvicsurgery were excluded. Patients were randomized into two groups: the first group (35patients) received ipsilateral two Double-J (7F each) postendoureterotomy, whereas the second group (35 patients) received one Double-J (7F). Double-Js were removed after 8weeks. Follow-up was done regularly by clinical interpretation and imaging studies. Patients' characteristics, operative data, and post- operative outcomes (subjectively and objectively) were compared in both groups. Results: Sixty-three patients completed follow-up >18 months, mean follow-up 30–4 months [19–41], and mean stricture length1.4–0.6cm [0.5–3.0], with no statistical significance between both groups. Success proved by relief of symptoms and radiographic resolution of obstruction. The overall success rate was significantly better in 2-Double-J group than in 1-Double-J group(83.9% vs 53.1%) $p = 0.009$, and also for stricture >1.5 cm (85.7% vs 38.5%) $p = 0.018$,respectively. Conclusions: Insertion of two ipsilateral Double-J, after laser endoureterotomy for bilharzial ureteral stricture associated with long-term success rate better than insertion of 1-Double-J, especially for stricture segment >1.5 cm.

Keywords: ureteral stricture, endoureterotomy, ureteral stent, holmium laser, two ipsilateral ureteralstents .