URINARY TRACT OBSTRUCTION

Metal stents for malignant ureteral obstruction

Metal mesh stents are a viable option for long-term decompression of the upper urinary tract in select patients with malignant ureteral obstruction. So say Evangelos Liatsikos and colleagues from the University of Patras, Greece, who report their 10-year experience with these devices in *The Journal of Urology*.

During 1996–2005 the investigators percutaneously placed expandable metal

stents in a total of 34 men and 56 women with unilateral ($n = 61$) or bilateral ($n = 29$) ureteral obstruction and renal failure or evidence of deteriorating renal function. All stents were placed through a nephrostomy tract, under fluoroscopic guidance, and in the setting of antibiotic prophylaxis. Two or more overlapping stents were used when needed to bridge long obstructed ureteral segments. Patients underwent follow-up examination at 1, 3, 6 and 12 months after stent implantation, and annually thereafter.

Percutaneous stent placement was successfully achieved in all cases; elevated serum creatinine levels and hydronephrosis resolved within 1–2 weeks after the procedure. Perioperative complications included mild flank pain ($n = 41$), irritative bladder symptoms ($n = 5$) and recurrent urinary tract infection ($n = 3$).

Patients were followed up for a median of 15 months after stent insertion.

Within 3 months, decreased ureteral patency owing to hyperplastic reaction and encrustation was seen in 39 and 6 stented ureters, respectively. In addition, stent migration to the bladder occurred in 13 ureters. Thus, the overall primary patency rate was 52.2%. Secondary interventions were unsuccessful in 45 cases, necessitating double-pigtail or external–internal stent insertion, and representing a secondary patency rate of 62.1%.

Overall, then, metal stents provided long-term ureteral patency in a good proportion of cases of malignant ureteral obstruction. The use of drug-eluting stents in this setting might further improve outcomes, and merits evaluation.

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