- Israeli Urology Association Congress – December 2013 -

The Use of Allium Ureteral Stent- URS: Results of a Multicenter Experience

Moskovitz Boaz; Halachmi Sarel; Meier Gil; Nativ Ofer

Background & Purpose:

Ureteral strictures (US) can be recurrent chronic illness that leads to severe side effects and poor quality of life. Several options to treat US exist, including percutaneous nephrostomy tube or double J stent (DJS). The stent needs to be replaced every few months in order to avoid stone formation which leads to obstructions and/or a complex surgery. With the advancement in technology over the last decade, a long term indwelling stents were developed.

Patients and Methods:

The Allium URS is a fully covered, self-expandable, large caliber metal stent especially designed for the ureter. The metal self-expanding component of the stent is made of a super-elastic nickel-titanium alloy (nitinol). The entire stent is covered with a new biocompatible, biostable polymer to make it a nonpermeable tube to prevent tissue ingrowth into the lumen and early encrustation. The Allium URS comes in two calibers (24F and 30F) and in two lengths (10 cm and 12 cm). The stent is inserted Antegradely or Retrogradely under vision post dilation of the ureteral obstruction.

The stent was implanted in 92 patients (107 ureters) in four different centers (Israel, Serbia, Italy and Spain). 69 patients had nephrostomy tube and 38 patients had chronic double J stent (DJS). From the 69 patients with a nephrostomy tube, in 32 patients the URS was inserted Antegradely, in 18 patients the stent was inserted Retrogradely and in 19 combined (Antegrade dilation/retrograde insertion). The causes for a Ureteral obstructions were: Gynocology tumor (some were after radiation), bladder tumor, iatrogenic injuries (post TUR-T, abdominal surgeries), Uretero-Intestinal Anastomosis, Pyeloplasty and post-surgery Ureteral urinary incontinence (fistulae).

Results:

The follow-up was between 1-95 months (a mean indwelling time of 27 months). None of the stents was occluded. 21 patients passed away as a result of their disease while having the stent. During 1-8 months, the stent migrated in 11 patients (11.9%) and was removed. In four patients with an early staged migration, the stents were replaced. One year later, in 18 patients, the stent was endoscopically removed with no complications and the patients remained asymptotic until the maximal follow-up, after 59 months.

Conclusions:

These interim results, indicate that the use in Allium Ureteral Stent is feasible, safe and effective. The easy and good outcome regarding the insertion and removal of the stent encourages its use in other indications as well, although a more extensive experience is necessary with a larger number of patients and longer follow-up to confirm the efficacy of these stents.