Summary

This study was done for evaluation of the memokath stent in treatment of Benign Prostatic Hyerplasia in patients unfit for surgery and in recurrent urethral stricture.

Between January 2008 to February 2009, at urology department in Benha University Hospital, 35 patients patients had undergone memokath insertion. They were categorized into two groups:

Group I: included 27 patients with BPH and were unfit for surgery.

Group II: Included 8 patients with recurrent urethral stricture (7 bulbar & 1 penile).

All patients were evaluated preoperatively by history including the IPSS (for group I) and the QoL score (for both), physical examination, routine pre- operative laboratory investigations including urine analysis with culture and sensitivty, abdomino-pelvic ultrasound with estimation of (PVR), transrectal ultrasonography (group I), sonourethrography (group II), ascending and micturating cystourethrogram (for group II) and urodynamic study in the form of uroflowmetry (Qmax) and cystometry (in selected cases of group 1)

Our results were subjected to detailed statistical analysis and we found that:

In BPH group: The age of patients ranged from 75-90 year (80.2±3.34) with prostate sizefrom 35-120cc (68±23.5) and Prostatic urethral length, measured by TRUS, from 20-50mm (33.7±7.29).

The associated morbidity in this study was IHD in (37%), COPD in (33.4%) and combined COPD and IHD in (29.6%), and this is similar to the associated morbidity in Lee et al study 2005, where there was cases with IHD and COPD.

All stents were inserted successfully using the standard technique in 21 patients (85.18 %) and our modified technique(using the URS) in 6 patients (14.81 %)., both techniques were relatively easy with the modified technique better in cases of high bladder neck.

Patients were treated as a day case, with the insertion done under local urethral anaesthesia with saddle block and mild sedation in some irritable patients.

The operative time in this study range from 20-40 min (27.4±5.77), with minimal intraoperative complications in the form of migration of the stent into the bladder in (7.4%), migration of the stent into the anterior urethra in (11.1%) and bleeding per urethra in (3.7%).

With comparison of the preoperative criteria to that of the postoperative findings using the paired (t) test, there was singnificant improvement of all parameters of comparison, as follow:

Regarding the mean Qmax, it improved from 0.0 ml/s (as all the patients were in AUR) to 11.37,12, 12, 11.81 ml/s at 2 weeks, 1 month, 3 months and 6 months postoperative respectively.

Regarding the mean QoL score, it improved from 5.29 to 2.18,1.44, 1.44, 1.44 at 2 weeks, 1 month, 3 months and 6 months postoperative respectively.

Regarding the IPSS , it improved from 26.3 to 12.92, 11.29, 11.29 and 11.14 at the 2 weeks, 1 month, 3 months and 6 months postoperative respectively.

Regarding the PVR, it improved from 548.88 ml to 31.29, 27.03, 27.96 and 28.7 ml at the 2 weeks, 1 month, 3 months and 6 months postoperative respectively.

Regarding the postoperative complications, there was minor complications in the form of, perineal discomfort in (7.3%), UTI in (11.1%) and hematuria in (3.7%) and these were treated conservatively. There were acute urinary retention in (3.7%), stent migration into the prostatic urethra towards the bladder in (7.4%).

The only major complication in this study was the mild urge urinary incontinence which occurred in 11 patiensts (40.1%) immediately postoperative. It improved on long term anticholinergic after about 1 month postinsertion.

In the urethral stricture group: Ages of the patients ranged from 45-80 year (62.5±24.74). The site of the stricture was (87.5%) bulbar and (12.5%) penile while

the aetiology of the stricture was iatrogenic in (25%), idiopathic in (37.5%), infective in (12.5%) and traumatic in (25%) of cases and the length of the stricture ranged from 2 to 5 cm (3.31±0.99).

All patients were assessed preoperatively with the mean Qmax, QoL and the PVR, and revealed the mean Qmax ranged from 0.0 to 8 ml/s (4.87±2.41), the QoL ranged from 4 to 6 (5.12±0.46) and the PVR ranged from 70 to 100 ml (80.71±10.96).

All the 8 stents were inserted successfully under spinal anesthesia after VIU in 5 patients (62.5%) and after dilatation in 3 patients (37.5%). We inserted the 70mm length in all cases (inorder to avoid the irritation by the stent at the penoscrotal junction), with the operative time ranged from 20 to 40 minute (30±6.45) and with no inraoperative complications.

All patients were followed up from 3 to 9 months (6.37±1.84) with the following parameters (Qmax , QoL score and the PVR) at 2 weeks, at 1 month, 3 months and 6 months postoperative. And all the follow up parameters showing singnificant improvement using the paired (t) test.

Regarding the mean Qmax, it improved from 4.87 ml/s to 19.5, 21, 20.5 and 19.5 ml/s at 2 weeks, 1 month, 3 months and 6 months postoperative respectively.

Regarding the QoL score, it is improved from 4.87 to 1.25, 1.25, 1.37 and 1.14 at 2 weeks, 1 month, 3 months and 6 months postoperative respectively.

Regarding the PVR, it is improved from 80.71 ml to 18.57, 19.28, 16.42 and 15 ml at 2 weeks, 1 month, 3 months and 6 months postoperative respectively.

Regarding the postoperative complications, there was minimal complications in the form of: Bleeding per urethra in (12.5%), Penile pain in (12.5%), Perineal discomfort in (37.5%), UTI in (25%) Acute urinary retention in (12.5%), Stent migration was reported in (12.5%), and There were no reported urinary incontinence or stent encrustation.

Regarding the sexual life during stent indwell, there was no problem in it except for the penile pain in the case of memokath in the penile urethral stricture.