

reported the long-term results of currently largest series of patients with ESBD and received AE.

**Materials and Methods:** The patients with irreversible ESBD and had received AE in Hualien Tzu Chi General Hospital were retrospectively reviewed. Vediourodynamic studies had been investigated in all patients before the AE and at the follow-up. The patients were classified according to the etiologies of ESBD including neurogenic voiding dysfunction (NVD, such as spinal cord injury (SCI) and meningocele) and inflammatory bladder disease (IBD, such as interstitial cystitis, ketamine cystitis, tuberculosis cystitis and eosinophilic cystitis), post pelvic cancer surgery and the others etiologies. The complications of the operation, active lower urinary tract problems and patients self reported satisfaction grading with a 4 point scale (0: not satisfied, 1: mild satisfied, 2: moderate satisfied, 3: excellent satisfied) at follow-up were recorded. The episodes of urinary tract infection (UTI) were also recorded.

**Results:** A total 102 patients with mean age of  $39.4 \pm 18.7$  years old had been investigated at a mean 78 months follow-up. The cystometric bladder capacity (CBC), compliance, self-voided volume and post-void residual urine in overall patients had significantly increased from before operation to the follow-up. At follow-up, fifty-six patients had spontaneous voiding without any urethral catheterization, forty-three patients had to perform clean intermittent catheterization (CIC), and 3 patients choose to keep an indwelling urethral catheter. Twenty-nine patients presented with vesicoureteral reflux at baseline, 23 patients had received ureter reimplantation, and only 2 patients still had VUR at follow-up. All the patients with NVD ( $n = 45$ ), IBD ( $n = 35$ ), post pelvic cancer surgery ( $n = 15$ ) and the others etiology ( $n = 7$ ) could significantly improve CBC and compliance at follow up. CIC had to be performed in 33 (73.3%) patients with NVD, six patients (40%) with post pelvic cancer surgery, four (57.1%) patients with the others etiologies and only 2 patients (6%) with IBD ( $p < 0.001$ ). Fifty-four (52.7%) patients had moderate to excellent satisfaction, and the satisfaction rate between different groups did not have significant difference ( $p = 0.362$ ). The most common reason of dissatisfaction was CIC (41.7%), following by urinary incontinence (25.0%) and recurrent UTI (16.7%). Most patients (65.6%) had UTI episodes frequency less than 1 times per year, 30% patients had 1 to 3 times UTI per year and 4.3% patients had UTI more than 3 times per year. The UTI frequency between different etiologies is not significant, but the patients who had to CIC or indwelling urethral catheter had a higher rate or recurrent UTI. ( $p = 0.039$ ) Bladder stones were found in 5 patients and two patients with IBD developed entero-vesical anastomosis stricture at follow-up.

AE could significantly improve bladder capacity and compliance in the ESBD patients with different etiologies in a long-term follow-up. The satisfaction and complication rate also did not have difference between the patients with different etiologies. CIC had to be performed in most patients with NVD and this is the major reason of dissatisfaction. Recurrent UTI is a common complication and the patients had to perform CIC or indwelling urethral catheter should beware of recurrent UTI.

**Conclusion:** AE for the patients with ESBD is a safe and effective procedure to improve bladder capacity and compliance. The most common complication is UTI, and the patients should to receive long-term regular follow-up in urology clinic.

## Laparoscopy

### PD12-4:

#### THE IMPACT OF DIABETES MELLITUS ON PATIENTS RECEIVING ROBOTIC ASSISTED RADICAL PROSTATECTOMY FOR PROSTATE CANCER

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**Purpose:** The aim of this study was to compare the early clinical outcomes between diabetic patients and non-diabetic patients receiving robotic assisted radical prostatectomy for prostate cancer.

**Materials and Methods:** Records were obtained from a review of database for prostate cancer patients receiving robotic assisted radical prostatectomy of Chang-Gung Memorial Hospital, Taiwan, from January 2012 to December 2014. The patients underwent a detailed physical examination and medical history review and were divided into two groups: diabetic group and non-diabetic group. The preoperative variables, intraoperative

and postoperative data were compared among the two groups. Their biochemical recurrence free survival and the urinary continence recovery were also taken into comparison.

**Results:** A total of 363 patients (84 DM; 279 non-DM) were enrolled in our study. Our data revealed that the patients of DM cohort were older in age (68 vs. 65 year old,  $p = 0.002$ ) and higher in BMI (26.2 vs. 24.8 kg,  $p = 0.009$ ). The DM cohort also had a higher percentage of clinical T3a (35.7% vs. 26.5%,  $p < 0.001$ ) and Gleason score 8–10 (26.2% vs. 14.3%,  $p = 0.019$ ). Intraoperatively, the two groups were similar in regard to operative time, blood loss, hospital stay, transfusion rates, and surgical complication rates. However, the final pathology stage of the DM cohort seemed to be more advanced than that of the non-DM cohort. Although their biochemical recurrence free survivals were similar, the speeds of recovery from urinary incontinence were quite different. The continence rate of DM group over post-OP 3 months, 6 months, and 12 months were 30.9%, 45.0%, and 62.8%, respectively, while the non-DM group were 43.0%, 66.5%, and 94.9%, respectively ( $p < 0.001$ ).

**Conclusion:** Among the prostate cancer patients receiving robotic assisted radical prostatectomy, the DM group had a more advanced T stage compared to the non-DM group. Their urinary continence also recovered more slowly.

### PD12-5:

#### THE SAFETY OF EN-BLOC-RESECTION OF RENAL PEDICLE DURING LAPAROSCOPIC NEPHRECTOMY AND NEPHROURETERECTOMY

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**Purpose:** As a previous perception, renal hilum en bloc ligation may increase the risk of renal arteriovenous fistula (AVF). We evaluated the safety and effectiveness of en bloc ligation of renal pedicle using endo-gastrointestinal anastomosis stapler (endo-GIA) during laparoscopic nephrectomy and nephroureterectomy.

**Materials and Methods:** Medical records were reviewed of 243 patients underwent laparoscopic nephrectomy and nephroureterectomy from January, 2002 to May, 2015. Preoperative evaluation include estimate blood loss (EBL), operative time (OP time), the method to ligate renal pedicle (en bloc versus separate) are documented. Comparison of EBL and op time are only performed among patients received laparoscopic nephrectomy. Postoperative evaluation include newly diagnosis of heart failure and we also use the CT (computerized tomography) scan for evaluating the possibility of formation of AVF.

**Results:** Average age of our patients was 56.42 years (range 12 to 89 yrs) including nephrectomy: 80 patients; nephroureterectomy: 143 patients; nephroureterectomy plus cystectomy: 19 patients. 103 patients have adequate out patient clinic medical records for evaluation and the mean follow-up is 5.3 months (1938.7 days, 15–6033 days). 70 patients have accurate record for the method of renal hilum ligation. (Group A: en bloc,  $n = 58$ ; Group B: separate,  $n = 12$ ) Among these two groups, there are no significant deference in EBL ( $p = 0.343$ ) and OP time ( $p = 0.635$ ). In our follow up, only 4 patients have newly diagnosis of heart failure. One of them eventually loss follow-up. The rest of 3 patients have no evidence of AVF formation under image and physical examination.

**Conclusion:** En bloc ligation of renal pedicle during laparoscopic nephrectomy and nephroureterectomy using endo-GIA is safe with no evidence of AVF formation with average follow up for 5.3 months (longest follow-up for 20 years)

### PD12-6:

#### SHOULD WE SHIFT TO RETZIUS-PRESERVING ROBOTIC ASSISTED LAPAROSCOPIC RADICAL PROSTATECTOMY?

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