plane abdominal X-ray. Treatment outcomes, including disintegration rate, stone-free rate, and retreatment rate, for both groups were also compared.
Results: Pre-SWL, the patient characteristics, treatment parameters, and stone-related parameter were similar for both groups. There were higher stone-free and disintegration rates in the electrohydraulic group for most stones, but the retreatment rate was higher in the electromagnetic group. There was no significant difference for stones at the middle and lower ureter and stones in the ureter bigger than 1 cm. The complication rates for pain, skin, or subcapsular hematoma were not significantly different between groups.
Conclusion: The electrohydraulic lithotriptor (Medispec E3000) group has significantly higher disintegration and stone-free rates, but has similar complication rates compared to the electromagnetic lithotriptor (Medispec EM1000) group. There is no significant difference between the two groups for middle or lower ureteral stones and ureteral stones bigger than 1 cm. The electromagnetic lithotripter has the advantage of being useful for SWL even without anesthesia.

NDP017:
RENAL STONES OUTLET OBSTRUCTED BY PARARENAL PELVIC CYST MANAGEMENT

Ping-Ju Tsai, Cheng-Chen Su, Chung-Sung Shen, Shih-Ya Hung. *Division of Urology, Department of Surgery, Yuan's General Hospital, Kaohsiung, Taiwan*

We often incidentally indentified some renal cysts at OPD. The principles of non-obstructive simple renal cysts management is watchful waiting. However, some renal cysts need to be managed, such as malignancy tendency, renal pelvic-ureteral junction obstruction by those cysts. The management of renal cysts included aspiration combined with injection of scloerosing materials, and laparoscopic unroofing.
We presented a 60-year-old male who has multiple low calyceal stones with focal hydrocalyx. The renal pelvic-ureteral junction was extrinsic compressed by one large parapelvic renal cyst. First, non-enhanced abdominal CT scan was arranged and thus we clearly know the relative locations of cyst and pelvic-ureteral junction. Laparoscopic unroofing of renal cyst was performed. After surgery, we arranged intravenous pyelogram for confirming the pelvic-ureteral junction patency. Watchful waiting for spontaneous passage of multiple small renal stones was planned. Unfortunately, stone streets formations in low third and upper third ureter were found later. Ureteroscopic lithotripsy and double-J catheter were performed smoothly. Extraperitoneal shock wave for residual renal stones was performed, too. Last, we removed the double-J catheter. The clearance of renal stone was excellent.

LUTS

NDP018:
CLINICAL FINDINGS AND TREATMENT OF KETAMINE CYSTITIS: 8 YEARS EXPERIENCE OF CHIMEI MEDICAL CENTER

Chye-Yang Lim [1], Chia-Cheng Su [1], Chien-Liang Liu [1], Steven K. Huang [2], Kun-Hung Shen [1]. [1] *Division of Urology, Department of Surgery, Chi Mei Medical Center, Taiwan;* [2] *Department of Surgery, Division of Uro-Oncology, Chi Mei Medical Center, Taiwan*

Purpose: To evaluate the clinical presentations of Ketamine cystitis and efficacy of related treatment.
Materials and Methods: We retrospectively analyzed the clinical presentations among the 20 ketamine abusers who visited our out-patient department of Chi Mei Medical Center from January 2007 to December 2014. The clinical symptoms, laboratory results, cystoscopy findings & managements were all analyzed.
Results: All the patient included aged between 20-40 years. Most of them had moderate to severe lower urinary tract symptoms such as frequency, urgency, dysuria, urge incontinence & bladder pain. The severity of lower urinary tract symptoms parallel to the duration of Ketamine abuse. Various degree of interstitial cystitis under the documentation of cystoscopic examination. Nearly almost the patients were treated with hydrodilatation & intravesical hyaluronic acid instillation. However, the symptoms were significant improved in those abstinence from Ketamine.
Conclusion: Longer the duration of Ketamine abuse, the lower urinary tract symptoms became more prominent. Surgical intervention act as an adjuvant to symptoms relief, total cessation from Ketamine is more effective.

Laparoscopy

NDP019:
CASE REPORT: A GIANT PSEUDOANEURYSM AFTER ROBOTIC-ASSISTED LAPAROSCOPIC PARTIAL NEPHRECTOMY

Chao-Yen Ho [1], Yi-Chia Lin [1,3], Ta-Nien Lu [2], Thomas I.S. Hwang [1,3,4]. [1] *Division of Urology, Department of Surgery, Shin Kong WHS Memorial Hospital, Taipei, Taiwan;* [2] *Department of Radiology, Shin Kong WHS Memorial Hospital, Taipei, Taiwan;* [3] *School of Medicine, Fu-Jen Catholic University, New Taipei City, Taiwan;* [4] *Department of Urology, Taipei Medical University, Taiwan*

Partial nephrectomy (PN) is the standard treatment option for patients with small renal mass, such as clinical T1a to T1b renal tumors. Compared with radical nephrectomy, PN is a more complicated procedure with involvement of both vascular and collecting systems, and complications can occur. The incidence of renal artery pseudoaneurysm (RAP) after PN is between 0.4% and 2%. Minimally invasive procedures, such as laparoscopic or robotic-assisted approaches have a higher incidence of RAP when compared with open PN.
Here we present a 63-year-old male with incidentally finding of a right renal tumor, clinical stage of T1bN0M0. He underwent a robot-assisted laparoscopic partial nephrectomy (RAPN). The patient tolerated the procedure well and was discharged uneventfully. The pathology report showed a papillary renal cell carcinoma, pT1bNxMx, Fuhrman grade II, with a negative surgical margin. However, the patient presented to ER with intermittent gross hematuria aggravated since one month after the operation. Contrast enhanced computerized tomography (CT) scan demonstrated a large pseudoaneurysm of 5 × 4.4 × 3.9 cm in size over the posterior part of the right kidney at the incision site. Transfemoral renal angiography performed by a radiologist demonstrated a huge pseudoaneurysm from the posterior branches of the right renal artery. Selective embolization was performed with coils, glue and gel-foam cubes. The patient tolerated the procedure well and was discharged uneventfully.

NDP020:
IATROGENIC ECTOPIC URETER: COMPLICATION OF ROBOTIC-ASSISTED LAPAROSCOPIC RADICAL PROSTATECTOMY

Chye-Yang Lim [1], Shun-Hsing Hung [1], Steven K. Huang [2], Kun-Hung Shen [1]. [1] *Division of Urology, Department of Surgery, Chi Mei Medical Center, Taiwan;* [2] *Department of Surgery, Division of Uro-Oncology, Chi Mei Medical Center, Taiwan*

Case description: A 53 year-old male with the medical history of hepatitis B carrier. As family history of prostate cancer of his father, he presented to our urologic outpatient department for survey. Due to elevation of PSA level, prostate biopsy was done which revealed adenocarcinoma. Clinical staging was cT3aN0M0. However, he underwent robotic-assisted laparoscopic radical prostatectomy at other hospital. Final pathology revealed prostate adenocarcinoma, pT2cN0M0. After operation, he suffered from abdominal and urethral pain for about 1 month with a CWV and a Foley catheter retained. Therefore, he returned to our OPD for further survey.
Physical examination revealed lower abdominal tenderness. Meanwhile massive clear yellowish drainage from CWV noted daily (around 1500 to 2000 ml/day) and its creatinine level was 13.68mg/dL. There was no evidence of intraabdominal infection by ascites analysis. Under suspicious of anastomotic site leakage, he was admitted for a series of examination and treatment. Firstly, exchanged of urethral Foley was done, follow by cystoscopic examination which inflammatory change of trigone noted but right ureteral orifice could not found. Then, cystography illustrated no contrast medium leakage. After review post-OP CT scan of the hospital

where operation done, progression of right hydronephrosis and suspicious contrast leakage at right UVJ area. In order to relief right hydronephrosis, PCN was performed. Then antegrade pyelography arranged which revealed urinary leakage from inferior aspect of urinary bladder near right UVJ. As iatrogenic injury of right ureter was noted, right JJ stent inserted via antegrade fashion by radiologist.
After that, the drainage from CWV getting decreased and the condition of abdominal pain subsided. Finally, the Foley catheter and CWV drain were removed under the relative stable condition. No urinary retention but incontinence noted. Further details during follow up and discussion will be presented in the near future.

NDP021:
DA VINCI SURGERY IN KMUH UROLOGY DEPARTMENT – PRELIMINARY RESULTS

Tsu-Ming Chien [1], Yen-Man Lu [1], Yii-Her Chou [1,2], Ching-Chia Li [1,3], Chun-Nung Huang [1,2], Hung-Lung Ke [1,2], Jiun-Hung Geng [1], Szu-Han Chen [1], Tsung-Yi Huang [1], Shu-Pin Huang [1,2]. [1] *Division of Urology, Kaohsiung Medical University Hospital, Kaohsiung, Taiwan;* [2] *School of Medicine, Kaohsiung Medical University, Kaohsiung, Taiwan;* [3] *Division of Urology, Kaohsiung Municipal Ta-Tung Hospital, Taiwan*

Purpose: The U.S. Food and Drug Administration (FDA) first approved the Da Vinci operation system for laparoscopic procedures in 2000, making it the first robotic system allowed in American operating rooms. The system was introduced to Kaohsiung Medical University hospital (KMUH) in March 2013. We reported our preliminary results in urology department.
Materials and Methods: Between April 2013 and March 2015, there were 70 patients received the Da Vinci operation. Clinical characteristics were collected retrospectively. Operation details and post operation results were also recorded.
Results: There were 56 patients underwent radical prostatectomy, 5 for nephroureterectomy, 2 for adrenalectomy, 2 for partial nephrectomy, 2 for renal cyst unroofing, 1 for nephrectomy, 1 for renal pyeloplasty and 1 for ureterolithotomy. There was no patient with conversion to open operation. The mean operation time for radical prostatectomy was 369.6 ± 97.0 mins, nephroureteroctomy was 366.3 ± 87.2 mins, adrenalectomy for 207.5 ± 45.9 mins, partial nephrectomy was 337.5 ± 24.7 mins, renal cyst unroofing was 207.5 ± 45.9, nephrectomy was 360 mins, renal pyeloplasty was 255 mins and ureterolithotomy was 260 mins, respectively. Post operation incontinence rate and PSA-free survival data will be presented.
Conclusion: Our preliminary data showed an acceptable results with no patient conversion to open operation.

NDP022:
ROBOTIC-ASSISTED PARTIAL NEPHRECTOMY FOR HILAR AND NON-HILAR TUMORS: PERIOPERATIVE OUCTOMES

Shih-Yen Lu [1], Hsiao-Jen Chung [1,2], Yi-Hsiu Huang [1,2], Tzu-Ping Lin [1,2], Alex T.L. Lin [1,2], Kuang-Kuo Chen [1,2]. [1] *Department of Urology, Taipei Veterans General hospital, Taipei, Taiwan;* [2] *Department of Urology, School of medicine, National Yang-Ming university, Taipei, Taiwan*

Purpose: The aim of this study was to compare the perioperative outcome between hilar tumors and non-hilar tumors after robotic-assisted partial nephrectomy (RAPN).
Materials and Methods: A retrospective review of 160 patients who underwent RAPN for a solitary renal tumor from December 2009 to September 2014 at our institution was performed. A total 163 tumors received consecutive RAPN were recruited. Demographic data and perioperative outcomes were compared between the hilar tumor group ($n = 25$) and non-hilar tumor group ($n = 137$). One hilar tumor case was converted to open method due to grossly vessel invasion and was excluded for analysis.
Results: In demographic data, there was no difference between age, gender and American Society of Anethesiologists (ASA) physical status score. Hilar tumor group had less BMI (23.5 vs 25.4, $p = 0.022$) and had larger preoperative maximal tumor size (4.9cm vs 3.6 cm, $p<0.001$). Hilar tumor group had higher PADUA score (10.7 vs 8.4, $p<0.001$) and higher RENAL score (8.9 vs 7.2, $p<0.001$). The rate of renal cell carcinoma (RCC) was 52% at hilar group and 70.1% at non-hilar group ($p = 0.07$).
Surgeries for hilar tumor were associated with longer operative time (292 vs 239 minutes, $p = 0.005$), greater console time (220 vs 176 minutes, $p = 0.016$) and longer warm ischemia time (40 vs 22 minutes, $p<0.001$). There was no statistically different in estimated blood loss (EBL), transfusion rate, postoperative stay and complication rate.
When comparing peri-operative renal function, non-hilar had a significant declined of serum creatinine ($p<0.0001$) and estimated GFR ($p<0.0001$) at post-operative 6 months and 12 months. Hilar tumor had a significant declined of serum creatinine at post-operative 12 months ($p = 0.042$). Both hilar and non-hilar tumor had a significant declined of effective renal plasma flow (ERPF) ratio at post-op 6 months (p = hilar/non-hilar: 0.0054/<0.0001) and 12 months (p = hilar/non-hilar: 0.006/<0.0001).
Conclusion: Hilar tumors received RAPN seems not be associated with an increased EBL, transfusion rate and postoperative stay and complication rate. RAPN is a safe and effective nephron-sparing surgery technique for hilar tumors.

Urinary tract infection

NDP023:
PAINFUL BLADDER SYNDROME WITH SECONDARY BILATERAL HYDRONEPHROURETERS ASSOCIATED WITH KETAMINE ABUSE

Ken-J Chien-Hsun Huang [1,2], Allen W. Chiu [3]. [1] *Division of Urology, Department of Surgery, Taipei City Hospital, Zhongxiao branch, Taiwan;* [2] *Graduate Institute of Medical Sciences, Taipei Medical University, Taiwan;* [3] *Department of Urology, School of Medicine, National Yang-Ming University, Taiwan*

Introduction: Ketamine is a drug used in human for general anesthesia in pediatric and trauma situations. It is classified as a non-competitive N-methyl-D-aspartate (NMDA) receptor antagonist and induced the dissociative anesthesia as a recreational drug. In Taiwan, it has been abused and increases the cases number in recent years. The ketamine abusers often visited emergency or outpatient department for their lower abdominal pain or urinary tract problems. Herein, we reported a young man who presented the painful bladder syndrome (PBS) with secondary bilateral hydronephroureters within 5+ months latterly and he is a ketamine abuser off & on for more than 5 years.
Case report: A young man presented to the outpatient department with the PBS without renal colic initially at his age of 22 y/o. No hydronephrosis was found by the renal sonography. After history taking, he admitted that the recreational drug ketamine was taken in white powder form, smoking or snorted once per day for more than 2 years at that time. He also had been received the emergent operation of splenectomy and left partial nephrectomy due to traumatic injury at his 20 y/o. Intravenous pyelography (IVP) showed no hydronephrosis of bilateral kidneys with decreased upper contour and function of left kidney and normal contour and function of right kidney. Cystoscopy presented erythematous bladder mucosa without superficial ulceration. 1st hydrodilation was also performed. He was discharged 1 week following the operation favorably. 22 months later, he suffered from the PBS again due to keep taken ketamine abuse. Cystometrogram reported detrusor overactivity and severe decreased the maximal bladder capacity to 44 ml. IVP also showed the same pictures as previous study. He was admitted to receive the 2nd cystoscopy hydrodilation at his 24 y/o. Moreover, he had been received the 3rd cystoscopy hydrodilation 14 months latterly and no hydronephrosis was found by IVP. Due to keep taken ketamine abuse, bilateral hydronephrosis were noted by the CT-urography and he was admitted to receive the 4th cystoscopy hydrodilation 7 months latterly at his 26 y/o. Fortunately, after he quitted ketamine abuse for 6+months, the PBS disappeared and the renal sonography showed no more bilateral hydronephrosis at his 27 y/o.