

( $p < 0.02$ ) which was poor performance in facets of overall QoL(0.046), enjoying of life( $p = 0.001$ ), meaning of life( $p = 0.01$ ), time for leisure activity( $p = 0.002$ ). However, log of PSA showed lack of impact in QoL.

**Conclusion:** Our data demonstrated the PSA values and trend of PSA value play an important role in determining QoL in Taiwanese PC patients. Which could provide information for clinician in decision making. The underlying reason is worth to explore in future.

#### MP1-4: PRIMARY CLEAR CELL ADENOCARCINOMA DERIVED FROM ENDOMETRIOSIS OF URINARY BLADDER

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**Purpose:** Clear cell adenocarcinoma was reported in some article before, and it is an uncommon lesion of urinary bladder cancer. However, to our knowledge, primary clear cell adenocarcinoma which was derived from endometriosis within urinary bladder is extremely rare. And we present our case who was diagnosed as primary clear cell adenocarcinoma which was derived from endometriosis in urinary bladder

**Materials and Methods:** A 53 y/o female went to our URO OPD due to intermittent hematuria, accompanied symptom including lower abdominal discomfort during mense. The Cystoscopy revealed urinary bladder dorm tumor. Biopsy result showed atypical epithelial proliferation. TURBT was arranged for this problem, the pathological result revealed clear cell adenocarcinoma surrounded by endometriosis. Due to this reason, gynecologist was consulted. Hysterectomy and oophorectomy was arranged. Pathological result showed benign transformation. Because of above finding, primary clear cell adenocarcinoma from urinary bladder endometriosis was diagnosed.

**Results:** Endometriosis was thought as benign lesion, however, malignant transformation had been revealed by some article. In this case, it may could be one evidence that urinary bladder endometriosis may become malignancy automatically. And persistent urine stimulation may be carcinogenesis to urinary bladder endometriosis.

**Conclusion:** Endometriosis of urinary bladder should be advised to follow up regularly because of the potential risk of malignant transformation. .

#### MP1-5: NEPHROGENIC ADENOMA AT URINARY BLADDER

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**Purpose:** Nephrogenic adenoma is a rare, benign disease of the urinary tract, usually as a response to chronic irritation or trauma. We report our clinical experience and review the literature.

**Materials and Methods:** From 2005 to 2015, 6 patients were diagnosed to nephrogenic adenoma at urinary bladder after transurethral resection (TUR). We retrospective reviewed and analyzed the characteristic of these tumors, presenting symptoms, and prognosis.

**Results:** There were 4 female and 2 male genders. Aged between 32 to 72 (mean 54) year-old. All patients have granulation or nodular lesion at bladder. Four patients presented with repeat hematuria, five patients had recurrent urinary tract infection. Three patients were associated with urothelial carcinoma. Two patients had long term Foley indwelling. Four patients persisted hematuria after TUR, consider recurrent disease. No mortality noted.

**Conclusion:** Nephrogenic adenoma is a rare and benign metaplastic lesion occurring in the urothelium. Recurrence rate is relatively high, so careful and long term regular follow-up is necessary.

#### MP1-6: RETROPERITONEAL SARCOMA: A SINGLE INSTITUTE EXPERIENCE WITH LITERATURE REVIEW

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**Purpose:** Soft tissue sarcoma (STS) accounts for less than one percent of all malignant tumors in adults. About 10–15% of adult STS are located in the retroperitoneum. Liposarcoma is the most common variant, more than 50%. Retroperitoneal sarcoma is a rare tumor and the surgical intervention is quite challenging due to its size, depth and easy recurrence. We retrospectively reviewed patients with retroperitoneal sarcoma in our hospital.

**Materials and Methods:** From 2010 to 2015, there are 34 patients with retroperitoneal sarcoma in Taipei Veteran General Hospital. We retrospectively reviewed their clinical data, stage, pathological features, treatment, recurrence rate, progression free and overall survival rate.

**Results:** Among 34 patients, 24 are males and 10 females. The mean age of the patients was  $62.4 \pm 10.6$  (range 42–86). The mean tumor size was  $19.0 \pm 7.4$  cm (range 5–38). As for histological subtypes, 7 were well-differentiated liposarcoma (20.6%), 23 were dedifferentiated liposarcoma (67.6%), 2 were round cells sarcoma (5.9%) and 2 were leiomyosarcoma (5.9%). All except one patient had tumor larger than 5 cm (T2b). One patient had lymphadenopathy and 3 had lung metastases at the time of diagnosis. Complete resections (R0) were of 44.1%, microscopic incomplete (R1) 41.2%, and grossly incomplete (R2) 14.7%. Twenty patients received combined resection of adjacent organs because of tumor adherence, mainly including kidney and colon. Median follow-up duration was 23.6 months. Twenty patients (58.8%) had local recurrence and seven patients (20.6%) had distant lung metastases. The mortality rate was 11.8%. The median progression free survival (PFS) and overall survival (OS) were 9.1 and 23.6 months.

**Conclusion:** Retroperitoneal sarcoma is a rare disease with high recurrence rate. Complete surgical resection is currently the standard treatment and combined resection of adjacent organs may be necessary. Patients who have dedifferentiated liposarcoma, incomplete resection with sparing of involved organs, or further necessity of chemotherapy tended to be more poorly prognostic.

### Moderated Poster-2

other

#### MP2-1: EXPERIENCE OF AUGMENTED REALITY IN RETROPERITONEAL LAPAROSCOPIC SURGERY IN SHOW CHWAN MEMORIAL HOSPITAL

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**Purpose:** A new image-guided surgical system, with a computer-aided imaging-overlay system between the real-time laparoscopic view and a

Gender	Age	Symptom	Cystoscopy	Recurrent UTI	Malignancy	Foley	Persist hematuria
F	61	Hematuria	Nodular	Y	Y	N	Y
M	53	Asymptomatic	Nodular	N	N	N	Y
F	72	Asymptomatic	Nodular	Y	Y	Y	Y
F	53	Hematuria	Nodular	Y	Y	N	N
F	32	Hematuria	Granulation	Y	N	N	N
M	45	Hematuria	Irregular	Y	N	Y	Y

reconstructed 3D surgical model of the targeted anatomy, named augmented reality (AR). We reported our experience of AR-assisted laparoscopic surgery (ARLS) on patients with retroperitoneal disease.

**Materials and Methods:** From January 2010 to August 2015, totally 41 cases with retroperitoneal disease were treated by ARLS in our hospital. 24 laparoscopic adrenalectomies, Ten laparoscopic pyeloplasty for Ureteropelvic Junction Obstruction (UPJO), three ureteroureterostomies for retrocaval ureter, three laparoscopic partial nephrectomies and one retroperitoneal tumor excision. Their medical records were analyzed, and the relevant literature was reviewed.

**Results:** All procedures were successfully completed without conversion to open surgery. There were no perioperative complications. There was neither postoperative mortality nor morbidity at the time of discharge and during follow-up.

**Conclusions:** AR provided precisely intraoperative decision-making by extensive understanding of the 3D topography of the surgical target, the 3D course of the surrounding vasculature, and the proximity of vital anatomic structures in advance of embarking on the actual surgical procedure.

#### MP2-2: BOWEL COMPLICATION IN RETROPERITONEOSCOPIC NEPHROURETERECTOMY

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**Purpose:** Bowel complication in retroperitoneoscopic nephroureterectomy is relatively rare condition. We reviewed the incidence and possible mechanisms of bowel complication in single medical center.

**Material and methods:** During 2006-2015 October, we performed 550 retroperitoneoscopic nephroureterectomy in NCKU hospital. We reviewed all cases including chart record, operation note, assessed the incidence of bowel complication and analyzed etiology, management and outcomes.

**Results:** 3 cases(0.55%) had bowel complication, including 2 bowel perforation and 1 small bowel obstruction. No intraoperatively bowel injury was identified. Two patients with bowel perforation were detected by massive drainage amount, and abnormal drainage color on postoperative 4th and 7th day. One patient developed small bowel obstruction 3 weeks after surgery. All 3 cases underwent exploratory laparotomy. In 2 cases of bowel perforation, no evidence of needle, cutting, or suture injury or thermal injury was noted around injury site. Possible mechanism of injury may related to previous abdominal operation history, which resulted in adhesion over intestine and peritoneum, and micro-injury may happen when we dissected retroperitoneal space. In the case of small bowel obstruction, the cause of small bowel obstruction was internal herniation due to peritoneal defect.

**Conclusion:** Previous abdominal operation history and locally advanced cancer may connected to higher bowel injury rate during retroperitoneoscopic nephroureterectomy. Careful retroperitoneal dissection, inspection of surgical field again after the surgery, and repair of peritoneal defect are needed in these cases. Monitoring surgical drainage can detect bowel injury earlier, and early intervention may lower morbidity and mortality.

#### MP2-3: USING A HARMONIC SCALPEL “DRILLING AND CLAMPING” METHOD TO IMPLEMENT ZERO-ISCHEMIC ROBOT-ASSISTED PARTIAL NEPHRECTOMY

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**Purpose:** Robot-assisted partial nephrectomy (RAPN) has gradually become a popular minimally invasive nephron-sparing surgical option for small renal tumors. Ischemic injury should be minimized because it impacts renal function outcomes following partial nephrectomy. Herein, we

detail the technique and present initial perioperative outcomes of our novel harmonic scalpel “Drilling and Clamping” method to implement zero-ischemic RAPN.

**Materials and Methods:** We prospectively collected baseline and perioperative data of patients who underwent zero-ischemic RAPN performed by our harmonic scalpel “Drilling and Clamping” method. From April 2012 to December 2014, a total of 19 consecutive zero-ischemic RAPN procedures were performed by a single surgeon.

**Results:** For 18 of the 19 cases, RAPN using our harmonic scalpel “Drilling and Clamping” method was successfully completed without the need for hilar clamping. The median tumor size was 3.4 cm (range: 1.8–6.2); operative time was 3.2 hours (range: 1.9–4.5); blood loss was 100 ml (range:30–950); and postoperative hospital stay was 5 days (3–26). One patient required intraoperative blood transfusion. Two patients had intra or postoperative complications: one was converted to traditional laparotomy because of massive bleeding, while another had post-operative stress ulcer. Pathology confirmed renal cell carcinoma in 12 patients (63.2%), angiomyolipoma in 6 patients: (31.5%), and oncocytoma in one patient (5.3%). Mean pre- and post-operative serum creatinine (0.82 mg/dl and 0.85 mg/dl, respectively), estimated glomerular filtration rate (eGFR) (84.12 and 82.18, respectively), and hemoglobin (13.27g/dl and 12.71g/dl, respectively) were comparable.

**Conclusion:** We present a novel zero-ischemic technique for RAPN. We believe that this technique is feasible and reproducible. Our initial results are encouraging and further studies are ongoing.

#### MP2-4: THE NERVE BRANCHES BETWEEN THE DORSAL PENILE NERVES AND THE CAVERNOUS NERVES SHOULD BE THE DETERMINANT OF ERECTILE FUNCTION

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**Purpose:** Literatures showed the changes of neuronal nitric oxide synthases (nNOS) in the dorsal penile nerves (DPNs) are consistent with the cavernous nerves (CNs) injury in rat model. However, the anatomical relationship and morphological changes between the DPNs and the CNs after injury have never been clearly explored in rats.

**Materials and Methods:** There are 5 groups including a sham group, and four groups of 7<sup>th</sup> day, 14<sup>th</sup> day, 21<sup>th</sup> day and 28<sup>th</sup> day after BCNI. Anatomical relationships between the DPNs and the CNs were dissected. The erectile function, immunohistochemistry and transmission electron microscope were also done.

**Results:** The DPNs connect the CNs through communicating nerve branches in rats. In the 14<sup>th</sup> day, the number of the DPNs small branches is lowest and the worst damage of myelin sheath in BCNI group. The number of the nNOS positive nerves, including main and small branches of DPNs, is positively correlated with the ICP.

**Conclusion:** We demonstrated communicating nerve branches between the DPNs and the CNs in rats. The loss of small branches and reduced number of nNOS positive nerves could be a representative feature of the DPNs after BCNI. The communicating nerve branches could be the determinant of erectile function in rats.

#### MP2-5: IS IT APPLICABLE FOR POSTVASECTOMY SEMEN ANALYSIS WITH THE IMPLEMENTATION OF AUA CLEARANCE PARAMETER

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**Purpose:** To evaluate the postvasectomy semen analysis (PVSA) with the special clearance parameter suggested by American Urological Association.