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Conclusion: This review of center-specific data shows that the relationship of the donor to their recipient has make a significant difference on the post-operative GFR and graft loss of the recipients. The recipients' kidney donated from the spouse the had worst GFR compared to the others groups.

Other

PD6-3:

APPLICATION OF RESONANCE METALLIC STENTS FOR BENIGN AND MALIGNANT URETERAL OBSTRUCTION: LONG-TERM FOLLOW-UP

Lin-Nei Hsu [1,a], Hung-Jen Wang [1,a], Hao-Lun Luo [1], Yuao-Tso Cheng [1], Chien-Hsu Chen [1], Tze-Yu Lee [2], Po-Hui Chiang [1]. [1] *Department of Urology, Chang Gung Memorial Hospital – Kaohsiung medical center, Chang Gung University College of Medicine, Kaohsiung, Taiwan;* [2] *Department of Radiology, Chang Gung Memorial Hospital – Kaohsiung medical center, Chang Gung University College of Medicine, Kaohsiung, Taiwan*

Purpose: To evaluate the outcomes of the metallic Resonance® ureteral stent and clarify the risk factors that lead to stent failure. In the present study, we present 5 years of our experiences with the use of a Resonance stent for malignant and benign ureteral obstruction.
Materials and Methods: We retrospectively identified and analyzed the records of all patients in whom Resonance® Metallic Ureteral Stent was placed between early 2009 and late 2014 in our hospital. We performed a descriptive analysis of key outcomes, including the failure and stenting duration, defined as the time from initial stent placement to last stent failure or patient death.
Results: A total of 52 metallic stents were placed in 36 patients, including 44 (84.6%) with malignant and 8 (15.4%) with a benign etiology. Maximum follow-up was 58 months (mean 14.7, median 8.5, IQR 14.9). Stent failure occurred in 10 patients (19.2%). The re-occlusion rate was significantly higher in the subgroup with urinary bladder invasion malignancy during Resonance stent insertion ($p = 0.035$). Patients who had had previous radiation therapy had a lower patency rate in comparison with non-radiation patients ($p = 0.001$), especially in patients with Resonance stent placement more than one year ($p = 0.018$). And the 50% patency rate with 52 stents was 10 months.
Conclusion: The Resonance metallic stent could be safely applied for those malignant or benign ureteral obstructions. For malignant ureteral obstruction, previous radiation therapy is a risk factor for stent failure, especially for those with long-term stent placement. We also suggested revision of Resonance metallic stent every one year to keep stent patency and prevent stent complications.

PD6-4:

LESS PAIN PERCEIVED IN TRANSRECTAL ULTRASOUND OF PROSTATE USING MICRO-CONVEX TRANSDUCER THAN BI-PLANED LINEAR TRANSDUCER

Pei-Shan Yang, Yu-Hsiang Lin, Chen-Pang Hou, Yu-Chao Hsu, Chien-Lun Chen, Ke-Hung Tsui, Phei-Lang Chang. *Division of Urology, Department of Surgery, Chang Gung Memorial Hospital, Linkou, Taiwan*

Purpose: Evaluate the difference in the subjective in pain of using different probes for transrectal ultrasound of prostate Material and Method: From July 2014 to December 2014, patients undergoing transrectal ultrasound of prostate (TRUS) were randomly divided into two groups, using two different probes. A visual analogue (VAS) was used to evaluate the subjective perception of pain in these patients.
Results: A significant difference was found in VAS between the two groups. The patient felt less pain during TRUS examination when using micro convex transducer. Besides, patients with external hemorrhoid, longer prostate sagittal length, and artifacts caused by stool were all found to be associated with more pain. The usage of micro convex transducer can help to reduce the pain for the patients with external hemorrhoids, whereas there was no difference of pain perception when the patient has previous rectal surgery or artifacts caused by stool.
Conclusion: We identified the factors of pain associated with TRUS. Micro convex transducer caused less pain associated TRUS than Bi-planed linear transducer.

PD6-5:

EFFECT OF LOCAL ANESTHESIA FOR RIGID CYSTOSCOPY, HOW LONG IS LONG ENOUGH: INITIAL DATA OF RANDOMIZING 34 PATIENTS

Pao-Hwa Chen, Bai-Fu Wang, Jensen Lin, Chang-Pao Chang, Heng-Chieh Chiang, Meng-Yi Yan, Sheng-Hsien Huang, Chun-Chi Chen, Kuo-Hsuan Huang, Hung-Jen Shih, Jian-Xiang Zhang, Jian-ting Chen. *Divisions of Urology, Department of Surgery, Changhua Christian Hospital, Changhua, Taiwan*

Purpose: This study was done to compare the length and form of anesthesia that is suitable for patients undertaking rigid cystoscopy procedure under local anesthesia.
Materials and Methods: From September 2014 to March 2015, a single Fellow surgeon performed removal of double-J catheter with rigid cystoscopy on 34 patients whom were randomized into two groups. One group received intra-uretheral injection of 4% xylocaine (2 minutes) with addition of 2% xylocaine jelly (1 minute) and another group with single dose of intra-uretheral injection of 4% xylocaine (3 minutes). Both groups received same amount of total anesthesia time (3 minutes). Several factors were used to analyze the effectiveness of local anesthesia (difference of pre and post-operative blood pressure and heart rate, VAS score, and patient's own description). Factors that may influence the effectiveness of local anesthesia were also recorded (form of anesthesia, length of anesthesia, BMI, depression angle of bladder neck, age, and any cystoscopy finding). Bladder neck depression angle were estimated by recording the cystoscopy insertion length and the actual depression when entering the bladder. Trigonometry formula for angle using inverse sin was used to estimate the depression angle.
Results: Thirty-four patients were included in this initial study. Initial data showed that decrease anesthesia time with liquid xylocaine, BMI, age and bladder neck depression angle of more than 30 degrees is associated with increase pain (increase in VAS and heart rate). All patients still experienced soreness even with increase length of anesthesia.
Conclusion: Studies have shown that a minimum of 5 minutes will be needed for rigid cystoscopy examination. Due to our current environment which demands maximizing efficiency without compromising patients' priorities, the use of adequate form and length of anesthesia should be a concern. Our initial data showed us that a liquid anesthesia with either 2 or 4% xylocaine with a minimum of 3 minutes is sufficient in performing rigid cystoscopy examination under local anesthesia.

PD6-6:

BLADDER AUGMENTATION IN KETAMINE ASSOCIATED CYSTITIS

Wei-Ting Kuo [1], Hua-Pin Wang [1], Tsan-Jung Yu [1], Victor C. Lin [1,2]. [1] *Department of Urology, E-Da Hospital, Kaohsiung, Taiwan;* [2] *School of Medicine for International Students, I-Shou University, Kaohsiung, Taiwan*

Purpose: Ketamine associated cystitis presented with severe dysuria, frequency, urgency, lower abdominal pain and gross hematuria. Due to its pathologic damage, the filling bladder volume is decreased. In our hospital we performed bladder augmentation in 4 cases of ketamine associated cystitis from 2004 to 2013.
Materials and Methods: All 4 patients was ketamine abuser and diagnosed by clinical symptoms and cystoscopic examination of ulceration with severe diffuse hemorrhage and low bladder capacity from 2004 to 2013. They all received bladder augmentation. The data on demographics, clinical characteristics, and patient outcomes were collected. All the data were yielded retrospectively.
Results: Total of 4 patients with ketamine associated cystitis received bladder augmentation at E-Da tertiary medical center from 2004 to 2013. Male patients were predominant (male : female = 3:1). The average age at operation is 29.75. (ranged 28-32) The average ketamine abuse time is 9.25 years. (ranged 8-11) After bladder augmentation of surgery, the post-

[a] Dr. Hsu and Wang contribute equally to this manuscript and serve as co-first authors.

voiding residual urinary amount increased and it improved capacity of bladder that more than 200ml. The patients are satisfied with the outcome of bladder augmentation and it improved the quality of life. Few times of urinary tract infection are encountered during follow up in 2 patients. One patient suffered from recurrent vesical stone without sepsis.
Conclusion: We shared our experience for refractory bladder pain due to ketamine associated cystitis. The outcome of treatment depends on the severity of the disease process. Although small number cases, bladder augmentation may be needed in such patients. It improves bladder capacity and quality of life of the patients.

Podium-7
Oncology
PD7-1:
SIGNIFICANT ASSOSCIATION OF CYCLOOXYGENASE 2 GENOTYPES WITH UPPER TRACT UROTHELIAL CANCER

Cheng-Hsi Liao [1,3,a], Chin-Mu Hsu [2,a], Chung-Yu Huang [4], Chia-Wen Tsai [2], Hsi-Chin Wu [5], Pei-Shin Hu [6], Hao-Ai Shui [4], Da-Tian Bau [1,2]. [1] *Graduate Institute of Clinical Medical Science, China Medical University, Taichung, Taiwan, ROC;* [2] *Terry Fox Cancer Research Laboratory, China Medical University Hospital, Taichung, Taiwan, ROC;* [3] *Department of Urology, Taichung Armed Forces General Hospital, Taichung, Taiwan, ROC;* [4] *Graduate Institute of Medical Sciences, National Defense Medical Center, Taipei, Taiwan, ROC;* [5] *Department of Urology, China Medical University Hospital, Taichung, Taiwan, ROC;* [6] *Department of Ophthalmology, Changhua Christian hospital, Changhua, Taiwan, ROC*

Purpose: Aim: Reliable biomarkers are in urgent need for diagnosis, outcome prediction or treatment effect monitoring for upper tract urothelial carcinomas (UTUC). Although up-regulation of cyclooxygenase 2 (COX-2) are found in stroma and tumor cells in more than half of the UTUC patients investigated, the genomic contribution of *COX-2* to UTUC is never studied. The study was to evaluate the association of six polymorphic genotypes of *COX-2* with UTUC within a Taiwanese population. Materials and Methods: A total of 218 UTUC patients and 580 healthy controls were genotyped for six *COX-2* polymorphisms, A-1195G, G-765C, T+8473C, intron 1, intron 5, and intron 6, of their association with UTUC risk. Results: The distribution of genotypes of *COX-2* G-765C and intron 5 were significantly different between UTUC patient and control groups ($p = 0.0001$ and 0.0016, respectively), while others were not ($p>0.05$). The haplotype analysis showed that compared with GG/TT haplotype of *COX-2* G-765C/intron 5, people carrying GG/AT variants have a significant increased risk of UTUC (odds ratio, OR = 4.83, 95% confidence interval, 95%CI = 1.79-13.06) while people carrying CG/TT variants have a decreased risk (OR = 0.26, 95%CI = 0.14-0.49). Conclusion: Our results suggested that individual and combined *COX-2* G-765C/intron 5 genotypes play a role in controlling the COX-2 expression and UTUC development.
Materials and Methods: *Sample collection.* A total of 218 patients with UTUC were recruited at China Medical University and Kaohsiung Medical University medical centers, all of whom were diagnosed by pathologic examination of specimens obtained by biopsy or surgical resection. The clinical and histopathologic information were collected from patient charts and pathologic reports. The information was reviewed, and the data were entered into the database. The tumor stage was assigned according to the TNM staging system (21), and the pathologic grade was determined according to the World Health Organization criteria (22). Five hundreds and eighty healthy individuals, who had been matched with the patients with age, admitted to the same hospital for health checkup and who had no previous diagnosis of urologic neoplastic disease or other malignancy were enrolled as controls. All the subjects enrolled were provided an informed consent and Human Research Committees have approved this study.

Genotyping conditions. The total genomic DNA of each subject was extracted from the leucocytes of peripheral blood and stored as previously published (23-25). The polymerase chain reaction (PCR) cycling conditions were: one cycle at 94°C for 5 min; 35 cycles of 94°C for 30 sec, 55°C for 30 sec, and 72°C for 30 sec, and a final extension at 72°C for 10 min. Pairs of PCR primer sequences and restriction enzyme for each DNA product of *COX-2* genotyping work are all listed in Table I. The PCR products were cut by proper restriction enzymes and the reaction was incubated for 2 h at 37°C. Then, 10 μl of each PCR product was loaded into a 3% agarose gel for electrophoresis.

Statistical analyses. Two hundreds and eighteen cases and five hundreds and eighty controls were analyzed in the presented Tables. To ensure that the controls used were representative of the general population and to exclude the possibility of genotyping error, the deviation of the genotype frequencies of *COX-2* single nucleotide polymorphism in the controls from those expected under the Hardy-Weinberg equilibrium was assessed using the goodness-of-fit test. Pearson's chi-square test or Fisher's exact test (when the expected number in any cell was less than five) was used to compare the distribution of the *COX-2* genotypes between cases and controls. Cancer risk associated with the genotypes was estimated as odds ratio (ORs) and 95% confidence intervals (CIs) using unconditional logistic regression. All statistical tests were performed using SPSS for Windows (version 14.0; SPSS Inc., Chicago, IL, USA) on two-sided probabilities. The correlation between categorical variables was calculated for statistical significance using Pearson's chi-square test and the threshold for significance was $p<0.05$.
Results: The frequency distributions of clinical characteristics for the subjects (218 UTUC patients and 580 healthy controls) are shown in Table II. Epidemiologically, there was no difference in the frequency distribution between the gender ($p = 0.4256$) or age ($p = 0.8518$) since the population was well matched (Table II). From the clinical and pathological viewpoints, tumors distributed in renal pelvic, ureter and multiple sites were 38.5%, 34.9% and 26.6%, respectively. Among the patients, 60.6% were high grade, and 77.1% were of stages lower than pT3 (Table II).
The frequencies of the genotypes for *COX-2* A-1195G, G-765C, T+8473C, intron 1, intron 5, and intron 6 among the UTUC patients and healthy controls are summarized and analyzed in Table III. Among the six polymorphic genotypes investigated, two of them, G-765C (OR = 0.32, 95% CI = 0.19-0.55, $p = 0.0001$) and intron 5 (OR = 3.91, 95%CI = 1.71-8.95, $p = 0.0016$), were found to be differentially distributed between UTUC case and control groups (Table III). First, the frequencies of GG and CG genotypes of *COX-2* G-765C were 92.7 and 7.3% among UTUC cases, and 80.2 and 19.8% among healthy controls, respectively. Second, the frequencies of TT and AT genotypes of *COX-2* intron 5 were 93.6 and 6.4% among UTUC cases, and 98.1 and 1.9% among healthy controls, respectively (Table III). As for other polymorphic sites of *COX-2*, there was no difference in the distribution of genotypes among UTUC cases and controls (Table III). In the next step, we have performed the allelic frequency analysis, and the frequencies of the alleles for *COX-2* A-1195G, G-765C, T+8473C, intron 1, intron 5, and intron 6 among the UTUC cases and healthy controls are summarized in Table IV. Consistent to the findings of Table III, G-765C and intron 5 of *COX-2* were found to be associated with UTUC risk in Table IV. In detail, higher frequencies of G allele in G-765C and A allele in intron 5 in the UTUC case group than the control group, associating to higher risk of UTUC (Table IV; $p = 0.0001$ and 0.0017, respectively). Regarding to the other four *COX-2* polymorphic sites, no distribution of their allelic frequencies was found to be significantly different between the control and UTUC case groups (Table IV). Considering the possible interactions between the two determinant *COX-2* genotypes for UTUC susceptibility, the haplotypic distributions of *COX-2* G-765C and intron 5 were further analyzed (Table V). We have set the most abundant genotypes for both G-765C and intron 5 genotypes as wild-type for haplotypic combination. Under this criteria, the "GG" genotype for *COX-2* G-765C and "TT" for *COX-2* intron 5 were selected, resulting in setting GG/TT combinative genotype in G-765C/intron 5 as the reference haplotype. Compared with the reference haplotype of *COX-2* G-765C/intron 5, the GG/AT group has a significant higher risk of UTUC (OR = 4.83, 95%CI = 1.79-13.06, $p = 0.0014$) while CG/TT has a lower risk (OR = 0.26, 95%CI = 0.14-0.49, $p = 0.0001$) (Table V). After adjusting for age and gender, the significances became more obvious for the GG/AT and CG/TT groups with their individual ORs altered to 4.86 and 0.32, remained statistically significant (Table V). The combination of CG/AT did not confer significantly altered cancer risk compared to the wild-type haplotype before or after adjusting for age and gender (Table V).
Conclusion: Urothelial carcinoma is the second most common cancer which usually arises from the urothelium with transitional cell differentiation, including that of the renal pelvis, ureter and bladder. In literature,

[a] These Authors contribute equally to this work.