Purpose: To investigate the prognostic role and molecular mechanism of Foxp3 expression in human bladder cancer.

Materials and Methods: Using quantitative RT-PCR and western blotting analysis, T24 parental and metastatic sublines were investigated for Foxp3, glucose transporter (GLUT) members and vascular endothelial growth factor (VEGF) expression and more aerobic glycosylation. Via immunoprecipitation, and confocal microscopic studies, Foxp3 expression was examined for the prognostic values in bladder urothelial carcinoma using Foxp3 and CD8 immunostaining. Using data mining, the association between Foxp3, VEGF, and GLUT member expression were explored.

Results: Foxp3 expression is associated with the metastatic potential among three human bladder cancer T24 sublines, as well as higher expression of glucose transporter (GLUT) members and vascular endothelial growth factor (VEGF) expression and more aerobic glycosylation. Via immunoprecipitation, and confocal microscopic studies, Foxp3 protein can bind with and maintain HIF-1α expression post-translationally. Knocking-down of Foxp3 expression blocks in vivo tumor growth in mice and prolongs mice's survival, which is associated with von Willebrand factor expression. Forty-three of 145 (22.8%) bladder tumors exhibit Foxp3 expression. Foxp3 expression is an independent predictor for disease progression in superfi cial bladder cancer patients (p<0.032), associated with less number of intratumoral CD8+ lymphocyte. The metaanalysis from 2 published datasets showed Foxp3 expression is associated with GLUT-4, -9, and VEGF-A, B, D expression.

Conclusion: Foxp3 expression in bladder tumor cells can bind with and regulate HIF-1α signaling post-translationally, contributing to be an independent prognostic marker for progression in bladder cancer.

Purpose: Renal cell carcinoma (RCC) accounts for about 3% of all cancer-related mortalities worldwide and the risk factors for the development of RCC have not yet been fully elucidated. Mounting proteomic evidence suggests that infl ammatory process plays a role in RCC etiology, and interleukin-10 (IL-10) is an important immunosuppressive cytokine. However, little is known about the contribution of IL-10 genotypes to RCC. The study aimed at evaluating the contribution of IL-10 promoter A-1082G (rs1800896), T-819C (rs3021097), A-592C (rs1800872) genetic polymorphisms to the risk of RCC in Taiwan.

Materials and Methods: Associations of the three IL-10 polymorphic genotypes with the risk of RCC were examined among 92 RCC patients and 580 age- and gender-matched cancer-free controls by polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) methodology.

Results: The pilot results showed that the percentages of TT and TC for IL-10 T-819C genotypes were signifi cantly higher in the RCC patient group than those in the healthy control group. The CC genotype carriers were of lower risk for RCC (odds ratio=0.45, 95% confidence interval:0.23-0.72, p=0.0033). There is no difference in the distribution of A-1082G or A-592C genotypes between the RCC and control groups.

Conclusion: In summary, the CC genotype of IL-10 T-819C genotype may have a protective effect on RCC risk in Taiwan. Further investigation with larger sample size in addition to genotype-phenotype correlation and intracellular mechanisms are our future work.

Purpose: To follow up the oncologic outcomes of patients who underwent nephroureterectomy with endoscopic bladder cuff excision (Pluck method) under the diagnosis of upper tract urothelial carcinoma.

Materials and Methods: Between May 2004 to November 2015, 147 patients with upper urinary tract urothelial carcinoma received laparoscopic radical nephroureterectomy with endoscopic bladder cuff excision at our institution. The medical records were reviewed retrospectively for clinical and pathologic factors. Statistical analyses were made for factors theoretically related to predicting oncological outcomes.

Results: The median follow-up time was 26 months. 27 patients (22.9%) developed bladder recurrence as local recurrence found in 4 cases (3.4%). Metastases were found in 17 patients (14.4%). Male gender was statistically signifi cantly related to bladder recurrence in multivariate analysis (OR: 2.2; 95% CI: 1.02 – 4.78; p = 0.045). Tumor size was the only predictive factor for local recurrence (mean: 5.0 cm versus 3.2 cm; OR: 1.29; 95% CI: 1.07 – 4.32; p = 0.029). Tumor staging was related to subsequent metastasis (OR: 2.08; 95% CI: 1.21 – 3.56; p = 0.008) and overall survival (OR: 1.84; 95% CI: 1.06 – 3.22; p = 0.031).

Conclusion: In patients with upper tract urothelial carcinoma received laparoscopic nephroureterectomy with Pluck method bladder cuff excision, the prognostic factor of bladder recurrence is male gender as larger tumor indicating higher risk of locoregional recurrence. Advanced staging carries higher possibility of subsequent metastasis and mortality.

Purpose: Current guidelines suggest that patients with intermediate- or high-risk prostate cancer (CaP) could be offered neoadjuvant hormone therapy (NHT) before they receive definitive radiation therapy. However, no powerful evidences showed NHT has prognostic benefits to patients receiving robotic-assisted laparoscopic radical prostatectomy (RaL RP) yet. This study was to compare the results of RaL RP in patients who did and did not receive NHT, especially focus on intermediate- and high-risk patients.

Materials and Methods: Patients received NHT prior to RaL RP by a single surgeon were identified from the VGHTC Prostate Cancer Database. Control group was picked out via computerized 1:1 ratio matching with the following criteria: (1) prostate specific antigen (PSA) level at diagnosis (2) initial Gleason score (3) clinical stage (4) Age. NHT regimens include combination of Luteinising hormone-releasing hormone (LHRH) agonist with anti-androgens and individual use of either LHRH agonist or anti-androgens. General characters of patients, peri-operative parameters, functional and oncologic outcome were prospectively recorded.
Results: Total 48 patients with D'Amico intermediate- and high-risk CaP were analyzed. The mean patient age, BMI, preoperative PSA, and Gleason score at biopsy appears equivalent but there're significant statistic higher percentage of cT2c in control group and a trend of higher percentage of cT3b in NHT group. Shorter operative time (153.5 minutes v.s. 113.3 minutes, p=0.002) and lesser amount of blood loss (147.08ml v.s. 93.75ml, p=0.013) were found in NHT group. The average period of biochemical recurrence (BCR) was similar (5.33 months v.s. 6.54 months, p=0.523) but the overall BCR rate was significantly lower in NHT group (87.5% v.s. 54.2%, p=0.026). In sub-group analysis, BCR rate was significant lower in NHT group if preoperative PSA level were between 10 to 20 ng/ml (66.67% v.s. 0%, p=0.035) and >50 ng/ml (100% v.s. 55.56%, p=0.018) while BCR rate was 81.82% v.s. 80% (p=0.0916) in PSA 20-50 ng/ml. However, average follow-up period was significantly insufficient in NHT group (49.46 months v.s. 20.29 months, p=0.001) although BCR usually happened in the postoperative first year in our study.

Conclusion: Neoadjuvant NHT followed by RaLRP seems to provide some potential benefits in shorter operative time, lesser amount of blood loss, and lower rate of BCR during postoperative two years in patients with intermediate- or high-risk localized CaP. 

Purpose: To assess the outcome of prostate cancer patients with preoperative prostate-specific antigen (PSA) levels over than 50 ng/ml who were treated with laparoscopic radical prostatectomy with intended wide resection.

Materials and Methods: Total twelve patients from Jan. 2007 to Dec. 2015 with prostate cancer who underwent laparoscopic radical prostatectomy with intended wide resection had an initial PSA level over than 50 ng/ml were included in this study. Overall survival, cancer-specific survival and, peri-operative and post-operative parameters and pathologic features, percentage of neoadjuvant hormone therapy, adjuvant therapy were analyzed.

Results: The mean serum PSA level was 89.4(50.6-191.0) ng/ml. Four patients (33%) received neoadjuvant hormone therapy. Two patients were classified as stage pt2, three as pt3A, four as pt3B and three as ptT4. Three patients had positive lymph node metastasis. Six patients (50%) received adjuvant hormone therapy. Three patients had PSA failure and two received salvage radiotherapy. Overall survival and cancer-specific survival were 100% and 100%, respectively, during mean follow up of 3.9 years. Continence rate was 91.7% and average recovery time was 62 (7-287) days. Potency rate was 8.3%.

Conclusion: The study showed a relatively feasible outcome for clinically non-metastatic but locally advanced prostate cancer with PSA levels over than 50 ng/ml treated by laparoscopic radical prostatectomy with intended wide resection.

Purpose: Angiomyolipoma (AML) is a benign neoplasm composed of varying admixtures of blood vessels, smooth muscle cells, and adipose tissue. However, it often leads to spontaneous hemorrhagic, pain or hematuria if large size. Invasive interventions including embolization, nephron-sparing surgery, or even nephrectomy were suggested for larger tumor. Due to increase risk of bleeding in larger tumor during operation, preoperation transcatheter arterial embolization (TAE) in larger tumor maybe can make the surgery more smoothly and decrease intra-operation blood loss. Hence, we are here to share our hospital’s clinical experience.

Materials and Methods: From March 2012 to November 2015, 13 cases of large AML (tumor size ≥7cm) underwent the nephron-sparing surgery in Chi Mei Medical Center. Preoperation transcatheter arterial embolization was performed in 6 cases (TAE group) and the other 7 cases are not (Non-TAE group). Patient demographics, tumor characteristics, intraoperative, and postoperative data including tumor size, warm ischemia time, and estimated blood loss (EBL) were analyzed and compared between these two groups.

Results: From March 2012 to September 2015, there were 5 male and 8 female patients met the inclusion criteria. The mean age was 46-year-old. Most of them have the chief complaint of flank pain (61.5%), because of tumor mass effect or rupture. The average tumor size was 11.7cm(7-22) and the average nephrometry score was 8. In the TAE group, mean warm ischemia time (WIT) was 5 min 02 sec and Non-TAE group was 11 min 32 sec. Mean blood loss was 1650ml (300-4000) in TAE group and 1900ml (50-7200) in Non-TAE group. The mean post operation length of I stay was 5 days in TAE group and 6.4 days in Non-TAE group. In Non-TAE group, there were 3 patient (43%) showed residual tumor during post op follow up imaging study and only 1 patient (16%) showed residual tumor in TAE group. 

Conclusion: In large AML case, TAE before partial nephrectomy had shorter WIT, decrease intra-operation blood loss, shorter length of stay and fewer residual tumor than those did not performed TAE.

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