

**IPD07:
TIMING OF 1ST RECURRENCE AFFECTS SUBSEQUENT CLINICAL
OUTCOME IN 1ST RECURRENT LOW GRADE TA BLADDER CANCER**

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Purpose: Recurrent non-muscle invasive bladder cancer (NMIBC) is very heterogeneous population due to the variability of recurrent timing, frequency of recurrence, and prior adjuvant therapy performed or not. There were no studies focusing on 1st recurrent low grade Ta tumor to evaluate the efficacy of adjuvant intravesical therapy or the timing of 1st rec. for subsequent outcomes.

Materials and Methods: Among 814 cases with an initial diagnosis of NMIBC, 139 cases with 1st recurrent TaG1/2 tumor without BCG therapy were included in this study. We divided the patients into 4 groups according to the timing of 1st rec. (Period 1; < 3M, also defined as “early 1st rec.”, Period 2; 3-12M, Period 3; 12-24M, Period 4; >24M) and evaluated whether the timing of 1st rec. or the adjuvant intravesical therapies for 1st rec. could affect the subsequent tumor recurrence (2nd rec.). The starting point of this study was the day of the 1st rec. and the median follow-up was 58.9 months.

Results: After the 1st rec., BCG and MMC instillation were performed in 69 and 16 patients. Second rec. occurred in 56 patients and consisted of TaG1/2 tumor in 40 patients (71.4%). At initial diagnosis, 110 of 139 patients (79.1%) were TaG1-2 tumor and 31 of the 56 patients with 2nd rec. (55.4%) presented TaG1-2 form three times in a row. The 3- and 5-year 2nd rec. free survival rates were not significantly different among the patients treated with (a) BCG (68.5%, 60.4%, respectively), (b) MMC (81.3%, 67.7%, respectively), and (c) no therapy (56.4%, 42.4%, respectively) ((a) vs (c); $p = 0.226$, (b) vs (c); $p = 0.114$). In each timing of the 1st rec., no significant difference on 2nd rec. rate was observed between BCG group and no therapy groups. The 3-year 2nd rec.-free survival rates in patients of early 1st rec. was 33.3%, which was significantly lower than those who recurred after 3 months (combined Period 2 to 4, 67.7%). Multivariate analysis demonstrated that early 1st rec. was the only independent predictor for 2nd rec.

Conclusion: Most of the 1st recurrent low grade Ta tumors had a history of and recurred as low grade Ta form. Early 1st rec. was the independent predictor for 2nd rec. whereas adjuvant therapy after 1st rec. did not reduce 2nd rec. regardless of the timing of 1st rec.

**IPD08:
ASSOCIATION OF HEPATITIS AND RENAL CELL CARCINOMA: RESULTS
FOR LONGITUDINAL NATIONAL HEALTH INSURANCE DATABASE IN
TAIWAN**

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Purpose: Several cancers were identified to be related to viral infection such as cervical cancer and human papilloma virus, and hepatocellular carcinoma (HCC) and hepatitis virus etc. A clinical observation of the relationship between hepatitis virus and renal cell carcinoma (RCC) was reported. We conduct a study using national health insurance database to see if the relationship of hepatitis virus and renal cell carcinoma.

Materials and Methods: A population based cohort study was conducted using Taiwan national health insurance database. A million patients were randomly selected from the longitudinal health insurance database 2005. Birth after January 1st, 2004 were excluded. The remaining 964846 patients were identified. Patients with a history of end-stage renal disease, hepatocellular carcinoma and renal cell carcinoma were also excluded.

Results: A total of 956679 patients were enrolled. Among them, 19533 patients were identified to have B or C hepatitis infection (either in the status of

active infection or carrier) and 937146 were non-hepatitis patients. The incidence of new onset ESRD, newly diagnosed HCC, and newly-diagnosed RCC were significantly higher in hepatitis patients (1.09% vs. 1.83%, $p < 0.001$; 4.17% vs. 0.17%, $p < 0.001$; and 0.11% vs. 0.06%, $p = 0.0066$, respectively). Univariate and multivariate hazard ratio of RCC in patients with hepatitis was 3.318, 95% CI: 2.16 – 5.09 and 2.578, 95% CI: 1.68 – 3.96, respectively.

Conclusions: B or C hepatitis infection is associated with increased risk of RCC from the longitudinal national health database analysis.

**IPD09:
TREATMENT-RELATED DETERIORATION OF RENAL FUNCTION AS A
BIOMARKER TO PREDICT ANTI-TUMOR EFFICACY OF SUNITINIB IN
PATIENTS WITH METASTATIC RENAL CELL CARCINOMA**

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Purpose: To investigate the relationship between treatment-related deterioration of renal function and anti-tumor efficacy in metastatic renal cell carcinoma (mRCC) patients treated with sunitinib.

Materials and Methods: We retrospectively reviewed the medical records of mRCC patients who were treated with sunitinib for more than 3 months. Patients receiving hemodialysis before receiving sunitinib as well as those who did not undergo nephrectomy were excluded from our analysis. Renal function was evaluated by the estimated glomerular filtration rate (eGFR) calculated using the MDRD equation modified for Japanese patients. The degree of deterioration in eGFR was compared with progression-free survival (PFS).

Results: Sixty-two patients were enrolled, the median age was 65 years, and 44 patients (71%) were male. The median baseline eGFR was 49.1 ml/min/1.73 m², and median decrease of eGFR was 9.9 ml/min/1.73 m². Forty-seven patients (76%) had a decreased eGFR of more than 10% compared to baseline values. The patients showing this decrease had significantly longer PFS than those who did not (PFS: 15.5 months vs. 6.1 months, respectively; $P = 0.001$). On multivariate analysis, a decrease in eGFR of more than 10% was a significant, independent factor for predicting longer PFS (hazard ratio, 0.37; 95% confidence interval, 0.17-0.83; $P = 0.017$) as well as MSKCC risk groups and the number of sunitinib treatment cycles.

Conclusion: Treatment-related deterioration of renal function may be a biomarker to predict better treatment efficacy for use of sunitinib in patients with mRCC.

ISTUA Podium-2

Robotic

**IPD10:
ROBOTIC-ASSISTED PARTIAL NEPHRECTOMY FOR HILAR AND NON-
HILAR TUMORS: PERIOPERATIVE OUTCOMES**

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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 Anesthesiologists (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