

**PD29-08****RELATIONSHIP OF POST-OPERATIVE CHRONIC KIDNEY DISEASE SUBTYPE STATUS AND OUTCOMES IN PATIENTS UNDERGOING RENAL SURGERY**

*miki haiffer\*, Robert Uzzo, Tianyu Li, Ron Gor, Dan Parker, Serge Ginzburg, haseebudin mohammed, Nakhil Waingankar, Ben Ristau, David Y. T Chen, Rosalia Viterbo, Richard Greenberg, Marc Smaldone, Alexander Kutikov, philadelphia, PA*

**INTRODUCTION AND OBJECTIVES:** Recent reports suggest that patients who experience de novo chronic kidney disease (CKD) due to surgical removal of nephrons (CKD-S) differ from patients with pre-existing CKD who undergo similar procedures (CKD-M/S). Here, we evaluate survival in these groups following kidney surgery.

**METHODS:** We queried our prospective Kidney Cancer Database for all patients who underwent radical or partial nephrectomy during January 1990 to July 2015 where survival data was available. New baseline GFR (nbGFR) was calculated 30 days after surgery. We divided the cohort into 3 groups: no post-op CKD (nbGFR >60); new onset post-op CKD (CKD-S =nbGFR < 60 with normal pre-op GFR); and persistent CKD (CKD-M/S =nbGFR and preoperative GFR both < 60). New onset CKD patients (CKD-S) were then further divided into 2 groups: nbGFR <45 (severe) and nbGFR >45 (mild). Kaplan-Meier estimates were used to assess overall survival (OS) and cancer specific survival (CSS). Cox proportional hazards model was fitted while controlling for age, gender and comorbidities.

**RESULTS:** 947 patients were included in the study. No CKD, new onset CKD-S and persistent CKD-M/S groups included 525 (55.4%), 267 (28.19%) and 155 (16.37%) patients respectively. 67.27% of the patients were male and 65.8% had measured comorbidities. CKD-M/S had a lower nbGFR compared with CKD-S and no CKD (40 vs. 49 vs. 81,  $p < 0.0001$ ). The median follow-up was 40.1 m (IQR 18.6-69.9). CKD-M/S and CKD-S groups experienced similar overall and cancer specific survival for the first 5 years after surgery, but CKD-M/S survival declined thereafter. In the multivariable analysis, gender, age and comorbidities did not affect OS and CSS in patients with CKD post-op. In this cohort, CKD-S (HR 1.8 [95%CI 1.31-2.47],  $p < 0.003$ ) and CKD-M/S (HR 2.01 [95%CI 1.45-3.024],  $p < 0.0001$ ) status did influence OS and CSS compared with no CKD. Similar results were found for cancer specific mortality. Mild and severe CKD-S groups had similar overall survival in our cohort ( $p = 0.746$ ), while mild CKD-S group had better mean cancer specific survival (105 m vs. 56.m,  $p = 0.013$ ).

**CONCLUSIONS:** Our data support the finding that post-operative CKD subtype status is associated with survival outcomes. We note that CKD-S patients demonstrated outcomes superior to CKD-M/S patients, but inferior to the no CKD group.

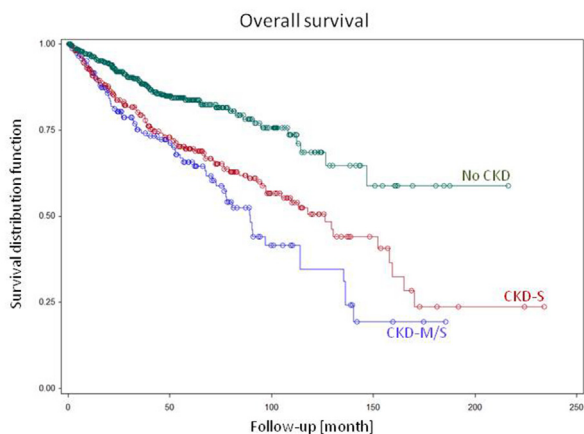


Figure 1: Kaplan-Meier estimates stratified by post-operative CKD-subtype status

**Source of Funding:** none

**PD29-09****PARTIAL NEPHRECTOMY IN A COHORT OF “ENUCLEORESECTIVE” CENTERS: INSIGHTS FROM THE SURFACE–INTERMEDIATE–BASE (SIB) MARGIN SCORE INTERNATIONAL CONSORTIUM**

*Andrea Minervini, Campi Riccardo, Riccardo Campi, Andrea Mari, Florence, Italy; Ottavio DeCobelli, Milan, Italy; Francesco Sanguedolce, Christian Villeda Sandoval, Bristol, United Kingdom; Brian Lane, Grand Rapids, MI; Georgios Hatzichristodoulou, Munich, Germany; Alessandro Antonelli, Brescia, Italy; Bulent Akdogan, Munich, Germany; Umberto Capitanio, Milan, Italy; Martin Marszalek, Vienna, Austria; Alessandro Volpe, Novara, Italy; Nihat Karakoyunlu, Ankara, Turkey; Hans Langenhuijsen, Nijmegen, Netherlands; Tobias Klatte, Vienna, Austria; Oscar Rodriguez-Faba, Barcelona, Spain; Miki Haiffer, Philadelphia, PA; Sabine Brookman-May, Munich, Germany; Marco Roscigno, Bergamo, Italy; Robert Uzzo, Philadelphia, PA; Alberto Lapini, Florence, Italy; Alexander Kutikov\*, Philadelphia, PA*

**INTRODUCTION AND OBJECTIVES:** Detailed reporting of resection strategies (RS) and resection techniques (RT) for tumor excision during partial nephrectomy (PN) is lacking in the current literature. As such, we evaluated the relationship between patient/tumor characteristic, RT, and outcomes at Centers from the Surface-Intermediate-Base (SIB) Margin Score International Consortium that pursue the “Enucleoresective” strategy during Partial Nephrectomy.

**METHODS:** After institutional review board approval, data were prospectively collected from a cohort of patients undergoing NSS at 16 high-volume Centers across the U.S. and Europe over a 6 months enrollment period. RT was classified according to the SIB scoring system. RS was classified as “enucleative”, “enucleoresective” or “resective” according to the most prevalent RT performed in each centre’s cohort. Descriptive and comparative analyses were performed in the six enucleoresective RS centers (ERC).

**RESULTS:** Overall, 507 patients were enrolled in the study. The RT was classified as pure or hybrid enucleation (E, SIB 0-2), pure or hybrid enucleoresection (ER, SIB 3-4), and resection (R, SIB 5) in 266 (52.5%), 150 (29.6%) and 91 (17.9%) patients, respectively in the overall cohort, while in 53 (33.1%), 83 (51.9%) and 24 (15.0%) patients in the ERC. Demographic data, comorbidity scores, surgical indication and approach and PADUA score did not significantly differ between the E, ER and R groups in the ERC. Tumors >4.0 cm were 21 (40.4%), 41 (49.4%) and 4 (16.7%) in the E, ER and R groups ( $p = 0.02$ ), respectively. A clampless strategy was used in 19.2%, 13.2% and 8.3% of patients ( $p > 0.05$ ). Median WIT was 19 (15-24), 17 (14-23) and 17 (15-21) minutes in the E, ER and R groups ( $p > 0.05$ ). Surgical postoperative complications were recorded in 7.5%, 13.2% and 4.2% of patients ( $p = 0.05$ ). Positive surgical margins rate was 7.0%, 13.4% and 0% of patients, respectively ( $p > 0.05$ ). Trifecta outcome was achieved in 67.2%, 71.6% and 73.7% of patients for the E, ER and R groups ( $p > 0.05$ ).

**CONCLUSIONS:** Through objective quantification of RT using a novel standardized reporting instrument, we were able to compare PN outcomes in a prospective multi-institutional international cohort. Overall, at centers that pursue enucleoresective technique, pure/hybrid enucleation is not uncommon (33.1%). ER and E are performed in a significantly higher proportion of tumors >4 cm compared to R. Although ER was associated with a higher rate of complications, Trifecta outcomes were comparable among resection techniques.

**Source of Funding:** none