Mortality in Septic Acute Kidney Injury Patients Under-Delta Neutrophil Index as an Independent Predictor of

However, the relationship between DNI and mortality in septic acute kidney injury (AKI) patients is incompletely understood.

**Background:** Continuous renal replacement therapy (CRRT) has been widely used in critically ill acute kidney injury (AKI) patients. Moreover, some centers operate a specialized CRRT team (SCT) composed of physicians and nurses, but few studies have yet determined the superiority of SCT control.

**Methods:** A total of 334 among 534 patients in original cohort, who started CRRT for severe AKI between August 2007 and September 2009 in Yonsei University Health System and were matched with a propensity score (PS), were divided into two groups based on SCT application. Moreover, we compared CRRT-related outcomes including down-time per day and lost time per filter-exchange between the two groups. The primary outcomes were 28- and 90-day all-cause mortality, and the secondary outcomes were the rates of renal function recovery at 28- and 90-day.

**Results:** The down-time per day, lost time per filter-exchange, and RBC-transfused numbers during CRRT treatment were significantly lower after SCT approach compared with the group before SCT, while net ultrafiltration rate in after SCT group was significantly higher compared to the before SCT group. During the study period, the 28- and 90-day all-cause mortality rates were significantly decreased after SCT application. Cox regression analysis revealed that 28- and 90-day all-cause mortality rates were significantly lower under SCT control, after adjusting for primary diagnosis, emergent surgical cases, Charlson Comorbidity Index and biochemical parameters.

**Conclusions:** A well-organized CRRT team could be beneficial for the clinical outcomes of AKI patients requiring CRRT.

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**PS 1376**

**Nephrology**

**Delta Neutrophil Index as an Independent Predictor of Mortality in Septic Acute Kidney Injury Patients Undergoing Continuous Renal Replacement Therapy**

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**Background:** Delta Neutrophil Index (DNI) indicates the fraction of circulating immature granulocytes, which is known to increase in infectious and/or septic conditions. However, the relationship between DNI and mortality in septic acute kidney injury (AKI) patients is not yet fully elucidated. Therefore, we assessed whether DNI is associated with mortality in septic AKI patients requiring continuous renal replacement therapy (CRRT).

**Methods:** We retrospectively enrolled 285 patients with septic AKI who were treated with CRRT at Yonsei University Health System between August 2009 and September 2012. The patients were dichotomized into high and low DNI groups based on the cutoff value from receiver operating characteristics of DNI values at the time of CRRT initiation. Log-rank test and Cox proportional hazards analysis were conducted to evaluate the effect of DNI as a prognostic factor for 28-day all-cause mortality.

**Results:** The mean age of the enrolled patients was 61.0 ± 14.7 years and 180 patients (63.2%) were male. The high DNI group (DNI > 5.5%) was composed of 149 patients (52.3%). During the study period, 192 patients (67.1%) died. Mortality rate during the 28-days was significantly increased in the high DNI group compared to low DNI group (79.9% vs. 53.3%, P < 0.01, log rank test p)

**Conclusions:** This study demonstrates that DNI at CRRT initiation could be an useful predictor for mortality in septic AKI patients requiring CRRT.

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**PS 1377**

**Nephrology**

**The Benefit of Specialized Team Approaches in Patients with Aki Undergoing CRRT: Propensity Score Matched Analysis**

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**Background:** Continuous renal replacement therapy (CRRT) has been widely used in critically ill acute kidney injury (AKI) patients. Moreover, some centers operate a specialized CRRT team (SCT) composed of physicians and nurses, but few studies have yet determined the superiority of SCT control.

**Methods:** A total of 334 among 534 patients in original cohort, who started CRRT for severe AKI between August 2007 and September 2009 in Yonsei University Health System and were matched with a propensity score (PS), were divided into two groups based on SCT application. Moreover, we compared CRRT-related outcomes including down-time per day and lost time per filter-exchange between the two groups. The primary outcomes were 28- and 90-day all-cause mortality, and the secondary outcomes were the rates of renal function recovery at 28- and 90-day.

**Results:** The down-time per day, lost time per filter-exchange, and RBC-transfused numbers during CRRT treatment were significantly lower after SCT approach compared with the group before SCT, while net ultrafiltration rate in after SCT group was significantly higher compared to the before SCT group. During the study period, the 28- and 90-day all-cause mortality rates were significantly decreased after SCT application. Cox regression analysis revealed that 28- and 90-day all-cause mortality rates were significantly lower under SCT control, after adjusting for primary diagnosis, emergent surgical cases, Charlson Comorbidity Index and biochemical parameters.

**Conclusions:** A well-organized CRRT team could be beneficial for the clinical outcomes of AKI patients requiring CRRT.

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**PS 1378**

**Nephrology**

**Postoperative ileus is an Important Risk Factor of Acute Kidney Injury in Patients Undergoing Colorectal Surgery**

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**Background:** Recently, emerging evidence suggest a presence of gut-kidney crosstalk. Despite of major advance in surgical techniques from open surgery to robot assisted surgery, acute kidney injury(AKI) is still major postoperative complication. The purpose of this study is to compare the incidence of postoperative AKI according to different surgical techniques and also the risk factors, outcomes of AKI in patients undergoing colorectal surgery.

**Methods:** This is a single center, retrospective study. A total of 199 patients who received colectomy due to colorectal cancer from 2010 to 2012 were enrolled and their clinical data were reviewed.

**Results:** The mean age was 66±12 years and male was 66.3%. Preoperative blood urea nitrogen and creatinine were 14.9±5.2 and 0.96±0.26 mg/dL. Stage I, II, III and IV cancer were found in 31.7%, 25.0%, 25.6% and 11.6% respectively. Open surgery was performed in 12% and laparoscopic assisted surgery or robot assisted surgery were performed in 55.7% or 32% of patients. AKI developed in 12 patients (6.0%), and 32.5% of them received acute hemodialysis. Postoperative ileus developed in SB patient(29%). Incidence of AKI was not different according to surgical techniques and the presence of diabetes, hypertension, chronic kidney disease(CKD), intraoperative shock, postoperative ileus, postoperative infection were associated with the development of AKI.Interestingly, postoperative ileus was found to be the only independent risk factor of AKI in multivariate analysis(odds-ratio:14.73,p=0.004).In addition,AKI patients showed significantly longer hospital stay and higher mortality than non AKI patients.

**Conclusions:** Paralytic ileus is a common manifestation after colorectal surgery and it showed strong association with the development of AKI. These results can suggest that enhanced bacterial translocation or increased intraabdominal pressure possibly resulting from postoperative ileus might be partially responsible for the development of postoperative AKI following colectomy.