

NWAC-0413**Pre-ICU characteristics in cardiac surgery patients with CPB developing AKI**

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Aims. AKI is common after cardiac surgery involving CPB. Lack of reliable early detection methods for post-op AKI limits timely therapeutic intervention. A number of new biomarkers for AKI await validation in this setting. Analysis of a database was performed to define baseline patient and biomarker characteristics in patients developing AKI.

Methods. 259 patients were enrolled. Patients with severe pre-existing renal insufficiency were excluded (eGFR<15ml/min). Urine and blood samples were obtained immediately before initiation of CPB. Patients were retrospectively divided into 2 groups, AKI (n=84) and non-AKI (n=175), based on the AKIN criteria (increase in s-Creat \geq 0.3 mg/dl or \geq 50% compared to baseline within 48h or reduction in Urine output <0.5 ml/kg/h for more than 6h). Statistical analysis of all characteristics before arrival on the ICU was performed.

Results. AKI patients (32% of total) were older (70 yrs (SD= 9) *vs* 67 (11), $p=0.043$) with higher BMI's (27.7 (4.8) *vs*. 26.7 (4.3), $p=0.036$). As to be expected baseline eGFR (CKD-EPI, in ml/min) was lower in the AKI-group (69.49 (20.30) *vs*. 76.45 (15.01), $p=0.024$). Both baseline urinary-NGAL ($\mu\text{g/l}$)(1211 (2172) *vs*. 749 (946), $p=0.020$) and serum-cystatin C (in mg/L)(0.98 (0.39) *vs* 0.86 (0.36), $p=0.0175$) were statistically higher in the AKI group and CPB time (in minutes) was significantly longer: 163 (63) *vs* 121 (51), $p<0.0001$.

Conclusion. u-NGAL and s-Cystatin most likely reflect pre-existing kidney dysfunction (like eGFR). CPB time is a significant factor for development of AKI, which is amenable to improvement.

NWAC-0271**Transfusion and impact on lung transplantation**

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Aims. Lung transplantation often requires blood transfusion. Bleeding complications and transfusion have been linked to increased morbidity and mortality. The goal of this research was to analyze transfusion requirements and associated factors in this setting. We also evaluated the impact of transfusion on mechanical ventilation time and mortality.

Methods. We retrospectively obtained data from 160 patients who underwent lung transplantation in Puerta de Hierro Hospital from October 2008 to Oc-

tober 2013. We analyzed intraoperative and immediate postoperative (24h) transfusion.

Results. The average age of patients was 51 ± 14 years, 65% men and 34% women with no difference in transfusion. 63% were transfused. 69% were double-lung and 27% single-lung.

Transfusion was associated to:

— Double-lung transplantation (75.7% of patients transfused *vs* 31.9% of single-lung; $p<0.01$).

— Cardiopulmonary Bypass (87.8% *vs* 51.4%; $p<0.01$).

— Preoperative pulmonary hypertension (74.7% *vs* 49.3%; $p<0.01$).

The median of days without mechanical ventilation after 30 days was significantly greater in patients without transfusion (28 days) compared with transfused (24 days); $p=0.02$. Although the length of Critical Care Unit stay was higher within the transfusion group, it didn't reach statistical significance (13 days *vs* 10 days in non transfusion). Mortality within 30 days was higher in transfused (15.2% *vs* non transfusion; $p=0.02$) with an odds Ratio (OR) 5.1 (1.1-23.1). One year mortality was higher in transfused (37.3% *vs* 14.3%; OR 3.6 (1.3- 9.5).

Conclusion. Blood requirements are higher in double lung transplantation, patients with pulmonary hypertension and cases that needed cardiopulmonary bypass. In addition, blood transfusion may have an impact on mechanical ventilation time, time to extubation and mortality.

NWAC-0264**Preoperative blood gas parameters in renal transplant recipients: randomised pilot study comparing preemptive and chronically dialysed patients**

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Aims. Preemptive renal transplant patients are a unique group of ESRD patients in whom no RRT has been instituted thus far. It eliminates the complications associated with chronic dialysis. On the flip side they can be metabolically more deranged in the absence of corrective influence of maintenance dialysis. For the anesthesiologist, an uncorrected acidotic patient can pose additional challenges in terms of further deterioration of metabolic acidosis, corrections of acidosis, fluid therapy, dyselectrolytemia, perioperative haemodynamic instability, response to inotropic drugs, level and frequency of monitoring used, delayed graft function and persistent post transplantation acidosis. Understanding their basic biochemical and metabolic profile will go a long way in better perioperative management. To evaluate the preoperative blood gas parameters in preemptive and chronically dialysed (>3 months) patients coming for renal transplantation and to analyse whether any statistically significant difference exists between the two groups.