

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active. different criteria of defining AKI. There is also variation found in different class of income countries, hospital based versus community based AKI. Within hospital based there could be variations in critically ill patients, patients with major surgeries or trauma, association of sepsis and hospital admissions for other reasons.

Methods: The current study carried out in all adult AKI patients developing community acquired AKI and coming to a tertiary care renal institution in Pakistan from January 1990 to Dec 2014. This is a retrospective data collection from patient's records and AKI was defined according to KDIGO guidelines. Trends among different groups which are classified in medical, obstetrical and surgical were recorded. The study protocol was in accordance with the Declaration of Helsinki and SIUT's Institutional Ethical Review Committee has granted permission for collection and presentation of this data.

Results: During study period of 25 years; A total of 5,623 patients were diagnosed to have AKI. Patients categorized in Medical, Obstetrical and Surgical causes for AKI. Medical causes contributed 60 %, obstetrical 26% and rest were surgical. Mean age was  $35.91\pm15.81$ ,  $27.83\pm5.66$ and  $43.24\pm$  16.74 respectively in these groups. In medical AKI there has been found a rise in toxic rhabdomyolysis, vivax malaria and dengue infection during later part of study (table). In obstetrical AKI observed continuous rise in numbers contributing to total AKI during these years. Surgical AKI included obstructed cases during initial ten years and only surgical trauma during later 15 years. The overall requirement for renal replacement therapy was 82 percent, indicating the severity of kidney injury on arrival. Older age on presentation in medical AKI, and thrombocytopenia, deranged coagulation, deranged liver function, hyperkalemia, requirement of mechanical ventilation and multi organ failure in all groups remained predictors of higher mortality.

### Table. Medical AKI

CAUSES	Group I (1990- 1999)	Group II (2000 - 2004)	Group III (2005 - 2009	Group IV (2010 - 2014)	Total 25 years (n=3,389)
Acute GE	302	190	183	178	853
Malaria	214	93	203	251	671
Rhabdomyolysis	67	35	52	180	334
Acute GN/ Vasculitis	88	32	36	80	236
Sepsis	71	31	28	32	162
Nephrotoxic Drugs	74	24	24	33	155
Snake Bite	38	16	30	31	115
Poisons	13	8	11	15	47
Hemolytic Uremic Syndrome	18	8	6	13	45
Dengue	0	2	9	32	43
Hepato Renal Syndrome	8	2	3	14	27
Acute Pancreatitis	6	3	4	6	19
Scorpion Sting	1	2	4	11	18
Misc. Causes	88	72	92	105	357
Unknown Causes	42	53	55	89	239

Conclusions: From Pakistan epidemiology for community acquired AKI has never been published on a large scale and this study would remain source of great information in this regard over coming years.

No conflict of interest

### **POS-045**

## EARLY RENAL REPLACEMENT THERAPY MAY **REDUCE THE ALL-CAUSE MORTALITY OF SEVERE COVID-19**



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Introduction: The efficacy of renal replacement therapy (RRT) remains to be validated in COVID-19. In this respective cohort study, we aimed to assess the efficacy of early initiation of RRT in ICU adults with severe COVID-19. Methods: Fifty-eight adult patients in ICU with critically ill or severe COVID-19 with a tendency of critical illness were recruited from Feb 9, 2020 to Mar 30, 2020. Early RRT were determined by the ICU medical team based on boom in cytokines levels, increased organs injury/failure and rapid aggravation of condition. All participants were followed up from the first day of ICU admission to March 30, 2020. The primary outcome was all-cause mortality in ICU.

**Results:** The mean age of the cohort was  $68.4\pm14.6$  years, with 81.0%had at least one comorbidity before hospitalization. Twenty patients (34.5%) initiated early RRT after 24.1±10.4 days from onset and 6.4±3.6 days from ICU admission. 34 of 58 participants (58.6%) died during ICU follow-up. Univariate and multivariate Cox proportionalhazards model showed that early RRT was associated with a lower risk of all-cause mortality in ICU with an adjusted HR of 0.280 (95% CI 0.106-0.738, p=0.010). Sudden unexpected death (SUD) was remarkably reduced in early RRT group, compared with control group (0.2 vs 2.9 per 100 person-day, p=0.02).

**Conclusions:** Early RRT can reduce the all-cause in-hospital mortality, especially SUD in patients with severe COVID-19, but not improve multi-organ impairment or increase the risk of AKI. Early initiation of RRT merits an optional strategy in critically ill patients with COVID-19. No conflict of interest

### **POS-046**

# ACUTE KIDNEY INJURY IN AMPHETAMIN INTOXICATION RESI OETOMO, A\*<sup>1</sup>, Kandarini, Y<sup>1</sup>, Widiana, R<sup>1</sup>,



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Introduction: Nowadays, drug abusedisone of the major health concern in society. According to the clinical observations, the prevalence of addiction to a new psychoactive drug is increased among the adolescense and youth. Amphetamine (AMPs) is used as a recreational drug to bring the sense of energy and euphoria for its user. Amphetamine may cause hepatotoxicity, rhabdomyolysis, cardiotoxicity, nephrotoxicity, and neurotoxicity separately or sometimes together as multiorgan toxicity, mostly as a serious condition which is required hospitalization. In the beginning of end-stage renal disease, substance related renal disease has been involved in 5-6% patients.

#### Methods: Case report.

Results: A 24-years-old man came to the hospital escorted by a security from a night club with unconsciousness, he reported that the patient consumed alcohol along with a green pill, while the name of the drug and the quantity remained unknown. Right after he took the drug, his reaction was jumping followed by vomitting then he fell unconscious before he had seizures for 5 minutes. Physical examination, we found the patient unconscious, fever presented at 40,5°C, the blood pressure was 90/55 mmHg, and heart rate was 160 times per minutes, also respiratory rate was 26 times per minutes and room air oxygen saturation was 98%. From blood examination, we found Hb level 17 gr / dl, WBC  $19.37 \times 10^3$  sel / mm3, platelets183.000 cells / mm3, BUN 34 mg / dL, creatinine serum 3.86 mg / dL, sodium 137 mmol / L, potassium 3.11 mmol / L. total bilirubin 7.91 mg / dL, direct bilirubin 7.18 mg / dL, indirect bilirubin 0.73 mg / dL, AST 191,3 U / L, ALT 56.7 U / L, elevated prothrombine time 32 second, CKMB >40 ng/ml, T-troponin was high (732 ng/ml). Blood gas analysis revealed metabolic acidosis (pH 7.31, HCO3 17.7 mmol/L, BE -8.5 mmol/L, pCO2 36.1 mmHg). Urinalysis showed proteinuria (100 mg/dl), erythrocyturia (+3), urine amphetamin was positive, marijuana and morphine were negative. Urine output was 100 cc/24 hours. We diagnosed the patient with acute kidney injury (AKI) stage 3 due to AMPs intoxication with unstable haemodynamic. Initial management was fluid and electrolyte