particular, obese had the worst intradialytic compliance and the shortest survival. Early onset RRT does not alleviate mortality.

Tab. 1

			HDx		HF-HD
			9 pts (average)		3 pts (average)
Urea mg/dl	Baseline		289.5 ± 98.8		292.5 ± 11.5
	After	p< 0.001	201.2 ± 67.7*		228 ± 77.5
Creat mg/dl	Baseline		3.5 ± 1		3 ± 0.6
	After		4.3 ± 0.8		3.7 ± 0.9
CRP mg/l	Baseline		181.1 ± 91.1		173.5 ± 33.5
	After	p < 0.05	109.8 ± 44*		207.5 ± 100.5
PCT ng/ml	Baseline		12.7 ± 10.9	p= ns	5.4 ± 3.1
	After	p < 0.02	3.8 ± 1.8*		3.3 ± 2.7
D-Dimer ng/ml	Baseline		5422.7 ± 2597.1		4528 ± 2211
	After		3977.8 ± 2729.7		3253 ± 2085
Noradrenaline mcg/m	Baseline		7.5 ± 3.1		7.2 ± 4.3
	After	p<0.002	13.5 ± 3.8*		12.8 ± 4
BMI kg/cm²			34.9 ± 9.4		35.2 ± 8.6

Conclusions: In our experience AKI complicated the course of more than 1 in 3 critically ill COVID19 pts: theirs risk for AKI was higher than the general ICU population. HDx had a significant impact on inflammation and renal markers, compared to HF-HD, for his increased clearance of cytokines. Unfortunately, COVID19 pts who received RRT had a poor prognosis, especially if obese and if requiring high doses of vasopressors, regardless hemodialysis techniques: intermittent or continuous, because its known that all are equally efficient. Since COVID-19 remains a threat to public health in the near future, hopefully further factors that may impact AKI and survival in these pts will be clarified.

No conflict of interest

POS-854

NEGATIVE ALACTIC VALUE IS REVERSED BY HEMOPERFUSION IN SEPTIC PATIENTS

Musso Guido, C[1,2], Cordoba Pablo, J[3], Aroca Martinez, G[2,4], Terresa Adrian, S[1], Barriga-Moreno P, A[3], Lozano-Sanchez, M[3], Barón-Alvarez A, R[3], González, H*[2,5], Canto, J[6], Huespe, I[6]

[1]Hospital Italiano de Buenos Aires, Departamento de Investigación, Buenos Aires, Argentina; [2]Universidad Simón Bolívar, Facultad de Ciencias de la Salud, Barranquilla, Colombia; [3]Clínica de la Mujer, Critical Care Division, Bogotá, Colombia; [4]Clínica de la Costa, Nephrology Division, Barranquilla, Colombia; [5]Universidad del Valle, Doctorado en Ciencias Biomedicas, Cali, Colombia, [6]Hospital Italiano de Buenos Aires, Critical Care Division, Buenos Aires, Argentina

Introduction: Gattinoni et al. have recently introduced a new internal milieu parameter: the "alactic base excess" (ABE). This variable is obtained by applying the following equation: ABE mmol/L = standard base excess (SBE) mmol/L + lactate mmol/L, being standard base excess mmol/L = [bicarbonate mmol/L - 24.8 mmol/L] + 16.2 mmol/L x (pH - 7.4). In a clinical setting, a negative ABE value is directly related to fix acid retention, and is associated with higher mortality in septic patients. Hemoperfusion (HPF) is an extracorporeal technique which involves the passage of blood (or plasma) through an adsorption cartridge, where solutes are removed by direct binding to the sorbent material. Then, we decided to evaluate if HPF could modify negative ABE value in sepsis.

Methods: Basal values of ABE, SBE and lactate (mean, SD) were obtained. The difference between these parameters values before and after 4 HPF (HA330) sessions (delta value) was evaluated. Student and Wilcoxon tests were applied for data analyses

Results: From 32 patients (age: 57±13, male 69%) suffering from respiratory insufficiency secondary to COVID-19 (RIC) who were treated with HPF (HA330) in the critical care unit of Clinica de la Mujer, Bogotá (Colombia), 6 presented metabolic acidosis (pH:7.37±0.1, pCO2: 36±14 mmHg, bicarbonate:20.5±3 mmol/L) with negative ABE value (-2.7±1) composed by negative SBE (- 4.7±1) and high lactate serum value (2±0.7 mmol/L). Delta ABE, SBE and lactate were: 7.7 (p:0.005), 6.1 (p:0.003) and 1.6 (p:NS), respectively. Thus, negative ABE was significantly reversed by HPF, due to SBE positivization without significant change in lactate.

Conclusions: Negative alactic parameter was significantly reversed by HPF in septic patients.

No conflict of interest

POS-855

MORTALITY RATE AND ACUTE KIDNEY INJURY PREVALENCE REDUCTION IN COVID-19 CRITICAL PATIENTS TREATED WITH HEMOPERFUSION

Barriga-Moreno P, A[1], Lozano-Sanchez, M[1], Barón-Alvarez A, R[1], Cordoba Pablo, J[1], Aroca-Martinez, G[2,3], Dianda, D[4], González, H*[2,5], Musso, C[2,4]

[1]Clínica de la Mujer, Critical Care Division, Bogotá, Colombia; [2]Universidad Simón Bolívar, Facultad de Ciencias de la Salud, Barranquilla, Colombia; [3]Clínica de la Costa, Nephrology Division, Barranquilla, Colombia; [4]Hospital Italiano de Buenos Aires, Departamento de Investigación, Buenos Aires, Argentina, [5]Universidad del Valle, Doctorado en Ciencias Biomedicas, Cali, Colombia

Introduction: COVID-19 induced damage is fundamentally reactive since is generated by a series of mediators released during inflammatory overreaction (cytokines storm). Hemoperfusion (HPF) is an extracorporeal technique which involves the passage of blood (or plasma) through an adsorption cartridge, where solutes are removed by direct binding to the sorbent material. HA330 cartridge can bind cytokines. Previous studies have proposed the utility of HPF with HA330 cartridge in reducing cytokines storm negative effects, even in COVID-19. Then, we decided to compare mortality rate, inflammatory response, and acute kidney injury (AKI) prevalence between critical patients suffering from respiratory insufficiency secondary to COVID-19 (RIC) who were treated with or without HPF-HA330.

Methods: Mortality rate, serum creatinine, and ferritin values were compared between a group of patients suffering from RIC who received conventional treatment support (Clínica de la Costa, Barranquilla.Colombia), and another group who additionally received 4 HPF-HA330 sessions. Student and Wilcoxon tests were applied for data analyses.

Results: From 116 patients, 57 years old (range: 47-71), male (65%) suffering from RIC, one group (n: 84) received conventional support treatment (Barranquilla), and the other group (n: 32) additionally received HPF-HA330 (Bogotá). Both groups had similar basal serum creatinine (0.9 mg/dl), and prevalence of hypertension (49%), diabetes mellitus (26%), chronic respiratory disease (12%) and cardiopathy (9%). HPF group had higher prevalence of obesity (72% vs 44%, p: 0.013), and mechanical ventilation (90% vs 48%, p:<0.001) than the non HPF group. Mortality rate (31% vs 61%, p: 0.008), highest serum creatinine (0.5 mg/dl vs 1.4 mg/dl,p:<0.001), and post-HPF ferritin (2868 vs 1675, p:<0.001) were significantly lower in HPF group.

Conclusions: Mortality rate, serum ferritin, and AKI were significantly reduced in critical COVID-19 patients who received HPF-HA330 than those who did not.

No conflict of interest

POS-856

COMPARISON OF OUTCOMES OF ACUTE KIDNEY INJURY IN COVID 19 PATIENTS BETWEEN FIRST WAVE AND SECOND WAVE IN A TERTIARY CARE CENTER

GUPTHA M N, H*[1]

[1]gandhi hospital and medical collage, nephrology, Secunderabad, India

Introduction: COVID-19 is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). COVID-19 disease mainly affects the respiratory system, which in more severe cases is manifested by pneumonia, hypoxemia and acute respiratory distress syndrome. Although the main focus is on the pulmonary features, physicians must be aware of complications that SARS-CoV-2 infection carries to other organs, including the kidneys. Acute kidney injury (AKI) is the most common kidney manifestation among patients hospitalized with COVID-19. However, the epidemiology, management, and associated outcomes have varied greatly between studies. The goal of this retrospective study was to compare demographic data, clinical characteristics and clinical outcomes of individuals with SARS-CoV-2 infection between the first and second wave of the pandemic.

Methods: **Aim**: To evaluate the outcome of AKI in COVID-19 patients between first wave and second wave.

Patients and Methods:

Study design: Retrospective observational study.

Setting: Tertiary care government teaching hospital.

Inclusion criteria: Patients admitted with respiratory symptoms whose nasal swab was COVID-19 positive admitted during the first wave and second wave with acute kidney injury.

Exclusion criteria: Covid patients with normal renal function.

Outcome assessed were clinico-demographic profile, occurrence of AKI according to KDIGO criteria, need for RRT and in-hospital mortality

Data was analyzed using appropriate statistical tools like SPSS version 17 and results noted.

Results: Total no of covid patients with acute kidney injury in first wave was 81 patients out of which 45 expired and 36 survived

Total number of covid patients with acute kidney injury in second wave was 57 out of which 22 expired and 35 survived.

Conclusions: Conclusion:

AKI in COVID-19 patients was more common in the First Wave group than Second Wave group. Majority of the patients presented with KDIGO stage 3 and was more commonly seen in First wave group 68 patients (84%) than Second wave group 26 patients (45.6%).

In first wave patients with, Diabetes, hypertension, anemia, coronary artery disease developed acute kidney injury, in second wave thrombocytopenia, severe acidosis was present in patients with acute kidney injury.

First wave patients were more critically ill requiring ventilatory support when compared to patients in second wave

More patients in second wave received Remedisivir when compared to first wave.

On comparing outcome of the AKI in COVID-19 patients, mortality was more in the First Wave AKI group 45 patients (55.6%) than Second Wave AKI group 22 patients (38.6%).

Potential significant factors affecting mortality were Diabetes mellitus, Hypertension, Coronary artery disease, patient requiring Heparin, Steroids, Remedsevir, O2/NIV Mask, Inotropes.

No conflict of interest

POS-857

RISK FACTORS AND SHORT-TERM OUTCOMES OF ACUTE KIDNEY INJURY IN HOSPITALIZED PATIENTS WITH COVID-19: A DOUBLE CENTER RETROSPECTIVE STUDY

LIAO, SJ*[1], Soco, ML[1]

[1]Chong hua hospital, Internal Medicine, Cebu City, Philippines

Introduction: Acute kidney injury (AKI) in COVID-19 is considered both a marker of disease severity and a negative prognostic factor for survival. Reported data on AKI in COVID-19 patients in the Philippines is very limited. This study aimed to determine the incidence, risk factors and short-term outcomes of AKI in patients hospitalized with COVID-19 in a tertiary hospital in Cebu.

Methods: This retrospective, double-center, observational cohort study was done in two separate private tertiary hospitals under the same institution in Cebu. A total of 535 patients were included in this study and all data were gathered through chart review. AKI was defined according to Kidney Disease: Improving Global Outcomes (KDIGO) criteria. Binary logistic regression analyses were performed to determine the risk factors and the association between the stages of AKI and in-hospital mortality. A p-value < 0.05 (two-tailed) was considered statistically significant.

Results: Among 535 patients included in this study, AKI developed in 150 (28%). Median age was 65 years and 60.67% were males. Hypertension (74%), diabetes mellitus (50%), and chronic kidney disease (19.33%) were the most common co-morbid conditions and were frequently observed in stage 3 AKI. The peak stages of AKI were stage 1 in 32%, stage 2 in 18.67% and stage 3 in 49.3%. Of these, 35.3% required renal replacement therapy (RRT). The risk factors identified included age, hypertension, CKD, proteinuria, hematuria, pyuria, procalcitonin, mechanical ventilator use, vasopressor use, ICU admission, and illness severity. AKI was observed in greater frequency among patients with respiratory failure, with 67.9% of patients on mechanical ventilation developing AKI compared to only 15% in non-ventilated patients. Among 53 patients who required RRT, 46 (86.79%) were intubated. The median time of intubation to AKI diagnosis was 24 hours. Furthermore, 63% of patients with AKI had major adverse kidney events with in-hospital mortality accounting for 56.6%. The odds of mortality increased by 1.4 times for every increase in AKI stage. Additionally, a total of 113 patients died and of these, 85 (75.2%) had AKI.

Table 5. Binary logistic regression analyses of risk factors associated with the development of AKI

Variables	Odds ratio	95% CI	*p*- value
Age	1.036	1.022-1.051	0.000
Gender	1.364	0.918-2.027	.125
Hypertension	2.651	1.627- 4.320	.000
CKD	4.839	0.419- 2.326	.000
PAD	0.837	0.050 – 14.097	.902
DM	1.360	0.860-2.150	.188
HIV	.000	.000	1.00
COPD	1.114	0.147-8.439	.917
Asthma	0.474	0.163- 1.373	.169
Malignancy	0.457	0.121 – 1.719	.246
Smoking	1.659	0.704-3.913	.247
BMI	1.024	0.982-1.068	.265
Urinalysis			
Proteinuria	1.010	1.006-1.014	.000
Hematuria	1.00	1.0-1.0	.822
Pyuria	1.002	1.001-1.004	.006
Medications			
Hydroxychloroquine	0.579	0.267-1.254	.166
Lopinavir – Ritonavir	1.049	0.689-1.597	.824
Remdesivir	0.877	0.511-1.505	.635
Tocilizumab	1.334	0.895-1.987	.157
Favipiravir	0.761	0.374-1.548	.451
Inflammatory markers			
LDH	1.00	1.00-1.00	.930
CRP	1.001	0.999-1.004	.203
Ferritin	1.00	1.00-1.00	.143
D dimer	1.004	0.994-1.014	.443
Procalcitonin	1.116	1.041-1.197	.002
Mechanical Ventilator	11.915	7.545-18.817	.000
ICU admission	6.974	4.463 -10.899	.000
Vasopressor	13.449	8.153- 22.183	.000
Illness severity	4.078	3.086 – 5.390	.000

Conclusions: Acute kidney injury occurred in more than one-fourth of hospitalized patients with COVID-19. Its development occurs in temporal association with respiratory failure and the time of intubation. The rate of in-hospital mortality was significantly higher among patients with AKI. Furthermore, there is a stepwise increase in the mortality rate for every increase in the severity of AKI.

No conflict of interest

POS-858

IMPACT OF ACUTE KIDNEY DISEASE ON MORTALITY OF HOSPITALIZED COVID-19 PATIENTS

MARQUES, F*[1], Gameiro, J[1], Oliveira, J[1], Fonseca, J[1], Duarte, I[1], Bernardo, J[1], Branco, C[1], Costa, C[1], Braz, S[2], Carreiro, C[2], Lopes, J[1]

[1]Centro Hospitalar Universitário Lisboa Norte, Nephrology and Renal Transplantation, Lisboa, Portugal, [2]Centro Hospitalar Universitário Lisboa Norte, Medicine, Lisboa, Portugal

Introduction: Acute kidney injury (AKI) has been reported as a severe complication of COVID-19 and the reported incidence varies widely among hospitalized patients. AKI in COVID-19 infected patients is associated with poor outcomes, being an independent risk factor for mortality. There are a significant number of patients who developed a persistent kidney damage, with delayed recovery, defined as Acute Kidney Disease (AKD). There is a lack of evidence on the real impact of AKD on COVID-19 patients. In this retrospective analysis we try to identify risk factors for the development of AKD and analyze the impact of AKD on mortality of COVID-19 patients.

Methods: This is a retrospective analysis of COVID-19 patients with AKI admitted at the Centro Hospitalar Universitário Lisboa Norte between March 2020 and December 2020. The Kidney Disease Improving Global Outcomes (KDIGO) classification was used to define AKI. AKD was defined by presenting at least KDIGO Stage 1 criteria for > 7 days after an AKI initiating event.

Results: From the 339 COVID-19 patients with AKI, 25,7% patients developed AKD ($n = 87$). The mean age was 71.7±17.0 years, 56.3% male ($n = 191$), the baseline SCr was 1.03±0.44mg/dL and the majority of patients were classified as KDIGO stage 3 AKI (54.3%). The in-hospital mortality was 18.0% ($n = 61$).