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.

Clinical and laboratory findings of the hospitalized patients positive for COVID-19 and association with in-hospital mortality

Characteristic	Acute Kidney Injury					P value no RRT vs. RRT	P value stages AKI
	Stage 1 (33)	Stage 2 (7)	Stage 3 all pts. (34)	Stage 3 - no RRT (11)	Stage 3 – RRT (23)		
Age, median (IQR)	71 (58–80)	65.5 (54–74.5)	67 (54–74)	71 (60–77)	62(50–66)	0.19	0.005
Gender, male *n* (%)	19 (57.57)	4 (57.14)	26 (76.47)	14(14.17)	12(35.29)	0.011	0.98
BMI, median (IQR)	27.9 (25.8–32.5)	29.2 (27.4–32.6)	31.5 (27.5–35.5)	29.4 (26.8–33.8)	34.4 (27.7–40.3)	0.041	0.11
Preexisting comorbidities, n (%)							
Hypertension	26 (78.78)	4 (57.14)	30 (88.23)	18 (52.94)	12 (35.29)	0.052	0.017
Diabetes	11 (33.33)	4(57.14)	29 (85.29)	9 (26.47)	20 (58.82)	0.42	0.53
COPD	4 (12.12)	0	6 (17.64)	5 (14.70)	1 (2.94)	0.56	0.65
Cancer	0	2 (28.57)	4 (11.76)	4 (11.76)	0 (0.00)	0.82	0.29
Smoker	28 (84.84)	2 (28.57)	17 (50.0)	8 (23.52)	9 (26.47)	0.71	0.26
Hyperlipidemia	10 (30.3)	7 (100.0)	24 (70.58)	12 (35.29)	12 (35.29)	0.46	0.04
Drugs, *n* (%)							
ACEi	23 (69.69)	3(42.85)	26 (76.47)	14 (41.17)	12 (35.29)	0.17	0.37
ARB	2 (6.06)	0	2 (5.88)	0	0	0.41	0.71
Statin	10 (30.3)	7 (100.0)	27 (79.41)	17 (50)	10 (29.41)	0.85	0.035
NSAID	5 (15.15)	5 (71.42)	10 (29.41)	7 (20.58)	3 (8.82)	0.04	0.71
Aspirin	23 (69.69)	6 (85.71)	29 (85.29)	12 (35.29)	17 (50)	0.53	0.58
Hemodynamic instability at presentation, *n* (%)	7 (21.21)	6 (85.71)	20 (58.82)	15 (44.11)	5 (14.7)	<0.001	0.52
Disposition on discharge, n (%)							
Discharged	18 (54.54)	4 (57.14)	13 (38.23)	4 (11.76)	9(26.47)	0.45	<0.001
Transferred to other departments	8 (24.24)	1 (14.28)	10(29.41)	3 (8.82)	7 (20.58)		
In hospital death	7(21.21)	2 (28.57)	11 (32.35)	4 (11.76)	7 (20.58)	<0.001	0.82
Recovery of kidney functions during hospitalization							
Full recovery	16 (48.48)	2 (28.57)	12 (35.29)	9 (26.47)	3 (8.82)		<0.01
Partial recovery	10 (30.3)	4 (57.14)	11 (32.35)	6 (9.30)	5 (14.7)		0.58

Variables	95% CI	p value	HR
eGFR <60 mL/min	1.31–1.91	0.01	1.58
Acute kidney injury	1.12–2.55	0.04	1.58
Stage 1	0.60-3.28	0.43	1.4
Stage 2	0.79-1.91	0.37	1.22
Stage 3	1.2–2.96	0.01	2.04

Conclusions: AKI in our hospitalized COVID-19 patients was common and carried high mortality, especially in patients with AKI stage 3. RRT did not improve survival.

No conflict of interest

POS-868

THE USE OF OXIRIS MEMBRANE IN CRITICAL ILL PATIENTS WITH SARS COV-2 PNEUMONIA

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Introduction: Approximately 5 to 10% of patients with AKI require RRT during their stay in the ICU. The mortality of these patients ranges from 30 to 70%. A factor that these patients commonly present is hemodynamic instability. Continuous renal replacement therapy (CRRT) has provided physicians with a versatile tool for the care of critically ill patients with hemodynamic instability with indications for RRT such as acid-base disorders, fluid and electrolyte abnormalities, uremia, and / or fluid overload. The CRRT presents different modalities for its application and allows the use of different membranes and cartridges, which is why it is frequently used in patients with multiple organ failure and sepsis. The pathophysiological understanding of this last entity has generated new strategies as a measure for the decrease of inflammatory cytosines. For these reasons, the TRRC has earned a place in the ICU during the SARS-CoV-2 pandemic. Currently, a mortality of 50% is described in the patient with critical Covid-19 and a decrease in it has been reported when they undergo CRRT with the use of the oXiris® membrane. Therefore, the following study was carried out to describe our experience with the oXiris® membrane in patients with Covid-19 in the ICU of a tertiary hospital in northeast Mexico.

Methods: Observational, retrospective and analytical study. Thirteen patients older than 18 years hospitalized in the ICU with a diagnosis of Covid-19 by real-time PCR test were included, who required CRRT with the oXiris® filter between January 2020 and August 2021. Sociodemographic data, number of days total hospital stay (EIH) and ICU; duration and specifications of the TRRC, and its outcome.

Results: 13 patients were included, of which 10 were men (76.9%). The mean age was 59.4 ± 12.9 years. The most frequent comorbidities were arterial hypertension (53.8%) and type 2 diabetes mellitus (38.4%); in 7 and 5 patients, respectively. The mean EIH was 60.3 ± 44.9 and 45.8 ± 30 days in the ICU. The median duration of the days with CRRT was 8 (3-11). The main indication for the initiation of CRRT was anuria (61.5%), followed by fluid overload (23%) and uremia (15.4%). Of the total population, 4 (30.7%) recovered kidney function, 5 (38.4%) were discharged with intermittent hemodialysis, and 8 (61.5%) died. In the first 48 hrs of the initiation of CRRT with oXiris® the vasopressor requirements decrees besides the creatinine and urea.

Conclusions:

Despite the use of the oXiris® filter in the patient with critical covid-19, mortality exceeds 50%, even if there is a good response in hemodynamical improvement at the begging of the therapy. We consider that this outcome is dependent on multiple comorbidities and clinical situations not included, so its application should continue to be investigated

No conflict of interest

POS-869

THE EARLY URINARY SEDIMENT PERFORMANCE IN THE HOSPITALIZATION IN PATIENTS WITH COVID-19 AND THE NEPHROLOGY EARLY INTERVENTION

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Introduction: **Introduction:** It is showed the multidisciplinary management of the COVID's patients is essential for their evolution, and the early detection of organic dysfunction could be an important role to avoid mortality. In March 2020, COVID-19 pandemic reach Mexico, and it led all the health system to change the intrahospital management. From April to August 2020, our hospital presented the first wave severe cases of COVID-19 which required KRT or CKRT, most of them where at the ICU.

Methods: **Methods and materials:** Retrospective analysis, all patients older than 18 years that were hospitalized at the Hospital Universitario de Monterrey, in the COVID area, with urinary exam at the first 24 hours of arrival. Patients from March to August 2020. Objective: to evaluate if the urinary sedimentation from the beginning could detect these patients who could develop AKI or the need of KRT on the combination with other factors. All data were analyzed using SPSS statistical software (version 25; IBM Corporation, Armonk, New York).

Results: **Results:**

343 patients , 162 patients with urinary exam from the firts 24 hours of hospitalitation (obtained when our nephrology team take place at COVID area every day)**.** Average age 49 years (min 18-max 91y), 37 patients requires kidney replacement therapy, most of them males (53.7%). More than 50% where KDIGO 3 at hospital admission. 86.5 % with proteinuria and 67.6 hematuria.

The variables were examined using logistic regression and the results showed that those patients with hematuria [OR 3.87 (95% CI 1.708-8.797), p = 0.001)] and proteinuria [OR 4.15 (95% CI 1.477-11.677), p = 0.007) have a higher risk of requiring KRT (Table 2), and for those who had: hematuria [OR 2.2 (95% CI 1.057-4.465), p = 0.035)], a progression in KDIGO [OR 3.4 (95% CI 1.252-9.291), p = 0.016) and also an age older than 40 years [OR 6.9 (95% CI 2.498-19.13), p = <0.001)] have a higher risk of death

Conclusions: **Conclusions:**

The presence of active sedimentary urinary on COVID patients is frequent. The patients who present the combination of hematuria and proteinuria develop severe AKI (KDIGO 3 without KRT) or the need for KRT. Factors in patients such as to be on their upper edge of 40 years old, the presence of hyperkalemia, metabolic acidosis, also the hematuria and proteinuria, suggest the AKI risk that required KRT.

Figure 1

Table 2 | Risk factors associated with RRT requirement in patients with COVID-19

Variable dependiente: KRT	B	Sig.	OR	95% C.I. para OR	
Inferior	Superior				
Hematuria	1.355	0.001	3.9	1.708	8.797
Proteinuria	1.424	0.007	4.2	1.477	11.677

No conflict of interest

POS-870

NGAL AND MICROALBUMINURIA AS AKI BIOMARKERS IN COVID-19 HOSPITALIZED PATIENTS WITH PNEUMONIA

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Introduction: The COVID-19 disease was first reported in December 2019 and has since spread rapidly around the world. This disease manifests in most cases as a lower respiratory tract infection. COVID-19 enters the human body using angiotensin-converting enzyme 2, abundant in the epithelial cells of the renal tubule. Theoretically, this could be significant in many ways: acute kidney injury (AKI), as well as proteinuria, and/or microhematuria could be associated with penetration of the virus into cells.

Microalbuminuria is widely recognized as a critical diagnostic tool in the progression of kidney disease. It is increased in tubular and glomerular diseases. The use of microalbuminuria as a marker for AKI was shown in an animal model and correlated with other markers. However, there are few studies that have validated its usefulness as a marker for AKI.

NGAL is abundantly expressed in the kidney after renal ischemia. NGAL has been tested in multiple studies of patients at risk of acute kidney injury (AKI) due to sepsis, cardiac surgery, exposure to contrast media, or after kidney transplantation.

The most frequently reported causes of admission to the intensive care unit in patients with COVID-19 are hypoxemic respiratory failure that requires invasive mechanical ventilation or hypotension that requires support with vasoactive amines. Data on AKI are scarce since they only report on incidence in these patients.

Methods: A prospective observational study. Patients who came to the area for COVID-19 were recruited. Upon admission, a urine sample was analyzed with Getein 1100, by quantitative immunofluorescence to determine levels of microalbuminuria and NGAL in 50 patients with creatinine <1.0. All patients had high oxygen requirements (> 5 liters/minute). All patients who had a positive PCR test for SARS CoV-2 were included and patients with a history of chronic kidney disease, urinary symptoms, underlying urological disease or complications of Diabetes or hypertension were excluded. Laboratories were collected at admission and 5 days after admission to compare with initial Ngal and microalbuminuria levels.

Results: The association of the variables was analyzed using the Spearman correlation coefficient, since they are continuous variables. It was found that an elevation of creatinine at day 5 and an initial Ngal> 200 and microalbuminuria >30 have a moderate correlation (rho = 0.46) with a p <0.05, and a low correlation (rho = 0.28) and a p <0.05, respectively.

Conclusions: Although there is no ideal biomarker for acute kidney injury, current biomarkers can significantly predict the development of acute kidney injury, especially in critically ill patients. With the emergence of COVID-19 disease, it is necessary to be able to prevent and treat acute kidney injury on time, in order to reduce the morbidity and mortality of these patients. In this study, it is observed that 2 biomarkers have a significant correlation to predict acute kidney injury, and it is necessary to have more availability of these biomarkers to detect it on time.

No conflict of interest

POS-871

THE CORRELATION BETWEEN CHEST CT FINDINGS AND OUTCOME IN COVID-19 PATIENTS WITH AND WITHOUT ACUTE KIDNEY INJURY

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