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Background and Aims: AKI is a common complication in critically ill patients, during the COVID-19 pandemic, it has been presented directly associated with damage by the virus, due to the severity of the disease and secondary to treatment, that is, secondary to the Crosstalk of organs and the crosstalk of support equipment, such as the extracorporeal oxygenation membrane (ECMO), which has been used in patients with severe respiratory failure. According to the international bibliography, the incidence of AKI in ECMO ranges from 26 to 85% depending on the characteristics of the patient, the percentage that requires KRT is around 45% .

Objective: Our hospital is a national reference center for ECMO support therapy as for lung transplantation, it is the only center that has an active program, so understanding the epidemiology of AKI associated with ECMO in our population is important, in addition to representing a part of the experience in Latin America.

Method: Retrospective and Descriptive study. Were included all patients 18y or older connected to ECMO with diagnosis of severe pneumonia for COVID-19 from June 2020 to August 2021. Data was collected in excel and using the ECMO Team platform data that is shared in the ELSO. Descriptive data analysis was performed with SPSS V21 and excel.

Results

48 Patients
 G:39 men
 A: 49 (Min 21, Max 68)
 W: 93kg (Min 55kg, Max 125kg)



As data to highlight from our population there is the **first bilateral lung transplant secondary to covid-19 in Latin America** and the **longest air transfer in ECMO in the world**.

Indication of star KRT:
 1) 50% fluid overload,
 2) 30% acidosis and uremia
 3) 20% anuria

AKI: 52% (25p)
 KRT 45% (22)
 CKRT 100% (22)

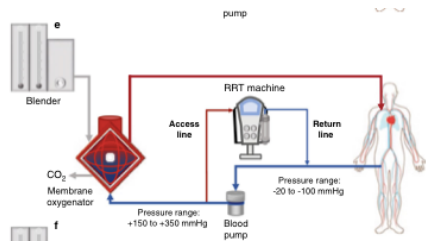
Full Renal Recovery: 10p (out of ECMO)
 Died: 45% (all still in ECMO)

AKI Causes (most multifactorial):
 1) Sepsis
 2) Nephrotoxicity
 3) Hemolysis (ECMO membrane complication)

All patients were in ECMO-VV at time CKRT started, all were connected in parallel in ECMO in Post blood pump and return Pre blood pump.

No coagulation problems as long as they have the ECMO anticoagulation

- 93% patients with heparin
- 7% with argatroban (for HIT suspicious)



Conclusion: In our center the AKI, KRT and mortality in patients with ECMO it is much like other centers reported. In COVID-19 there is not yet very clear evidence and more studies should be done. This is the first study in Mexico about ECMO, AKI and COVID-19.