



Something new, something good, MCU - medium cut-off filter for COVID-19 AKI: First use in Ecuador

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Abstract:

This article evidences the effectiveness of the use of MCO filters in the removal of IL-6 in a patient with acute renal failure caused in a critically ill patient with COVID-19 who need renal replacement therapy in continuous venovenous hemodialysis modality. COVID-19-associated AKI (COVID-19 AKI) is associated with high mortality and serves as an independent risk factor for all-cause in-hospital death in patients with COVID-19 1,2. MCO membranes allows to remove middle molecules (50,000 Da), such as IL-6, IL-1, FNT- α , FLC k (around 25000 Da)³, proteins associated with the inflammatory response. MCO has the ability may reduce inflammation, as supported by the lowering of the concentration of inflammatory cytokines and the reduction of transcription of proinflammatory cytokines in peripheral leukocytes⁴.

Biography:

Harold Alvarez is a neurologist, also has master's degrees in business administration, health management, and is currently pursuing a master's degree in epidemiology and collective health. He developed his professional practice as a nephrologist at the General Hospital of the South of Quito, a hospital designated as a sentinel for the management of patients with COVID-19. Together with the team of nephrologists and intensive care physicians, have been able to use continuous renal replacement therapy and hemodadsorption therapy in critically ill patients due to SARS-COV-2 disease.



Publication of speakers:

1. Arentz, M. et al. Characteristics and outcomes of 21 critically ill patients with COVID-19 in Washington State. *JAMA* 323, 1612–1614 (2020).
2. Richardson, S. et al. Presenting characteristics, comorbidities, and outcomes among 5700 patients hospitalized with COVID-19 in the New York city area. *JAMA* 323, 2052– 2059 (2020).
3. Ronco C, Reis T, Cozzolino M: Rationale for Medium Cutoff Membranes in COVID-19 Patients Requiring Renal Replacement Therapy. *Nephron* 2020;144:550-554.
4. Moore JB, June CH. Cytokine release syndrome in severe COVID-19. *Science*. 2020 May 1;368(6490):473-474.

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