Renal Replacement Therapy with a Cytokine Absorption Filter (oXiris®) in patients with septic shock: a case-control study nested in a cohort

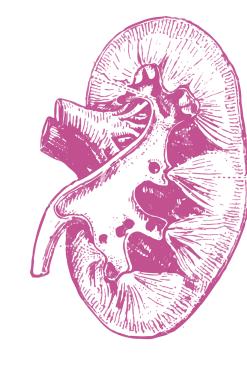
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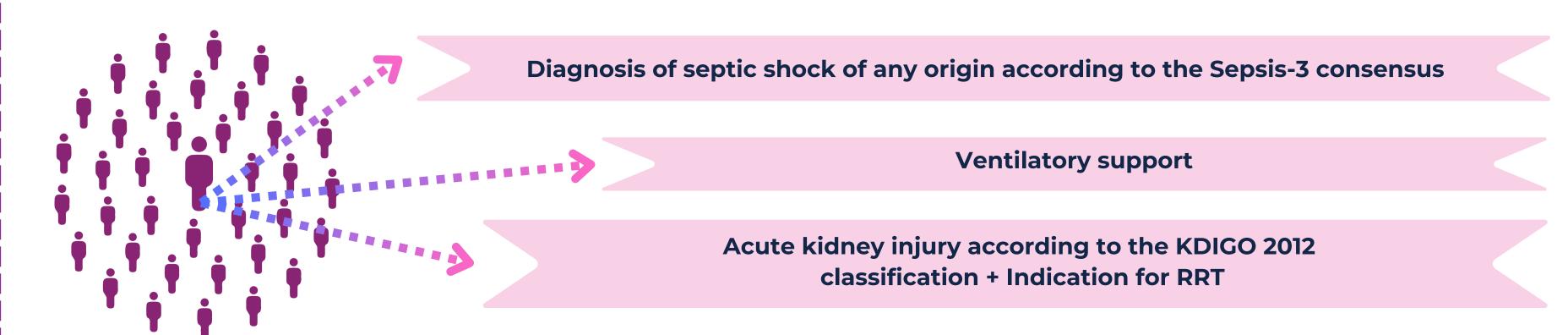
SEPSIS-ASSOCIATED ACUTE KIDNEY INJURY IS THE MAIN CAUSE OF ACUTE KIDNEY INJURY IN PATIENTS IN THE ICU

SA-AKI has a multifactorial etiology, with systemic inflammation being one of the pathophysiological pillars for its development. Hemadsorption techniques seek to modulate the inflammatory response through the removal of inflammatory mediators and circulating bacterial toxins.

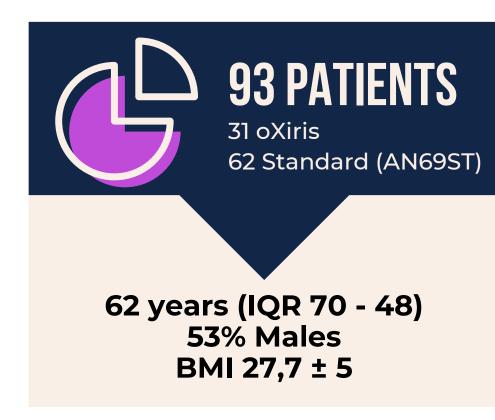
Determine the effect of the use of hemofiltration with a cytokine removal filter (oXiris®) on the reduction support dose vasopressor, oxygenation parameters and inflammatory markers.

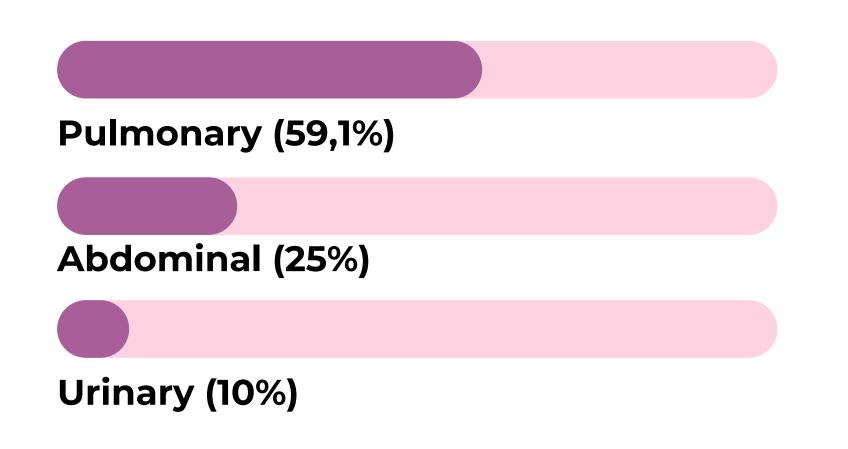
NOVEMBER 2020 - MAY 2023 MEDELLIN, COL **Clinical Trials NCT04952714**

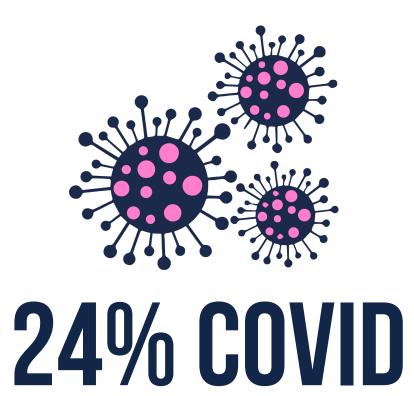




Follow-up was carried out from admission to discharge from the ICU. Surviving patients were followed up after 28 days.







Duration was 5 days (IQR 9 – 3)



Onset time from admission was

Circuit anticoagulation was mainly with Heparin (61.2%)

63,4%

HOSPITAL MORTALITY 64,5% vs 62,9% p0.88 64,5%

28-DAY MORTALITY p>0.05



A trend is evident in the decrease of inflammatory markers up to 72 hours



No adverse events related to the use of the Oxiris filter were reported



Median Lenght of stay was 19 days (IQR 27 - 9) No differences (p0.072)

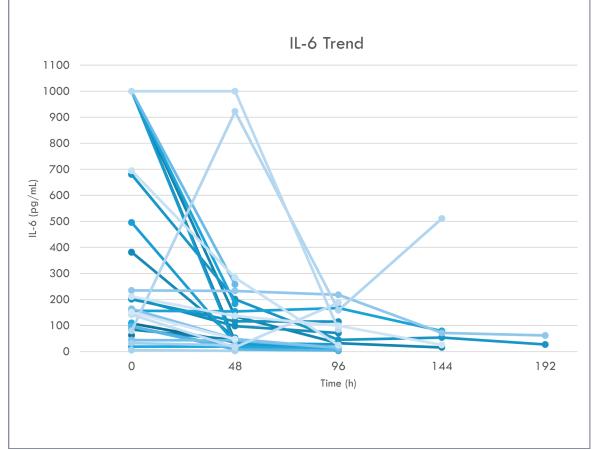


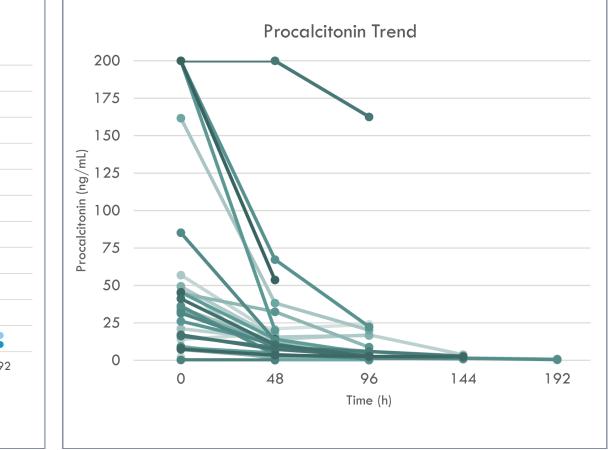
Reduction in ventilation days oXiris 10 vs Standard 19 (p0.032)



SOFA score reduction up to 96h p0.033

NO SIGNIFICANT DIFFERENCE WAS FOUND IN P 0.617 VASOPRESSOR SUPPORT, OXYGENATION P 0.658 INDEX OR METABOLIC STATUS (PH, LACTATE) p 0.114 p 0.637





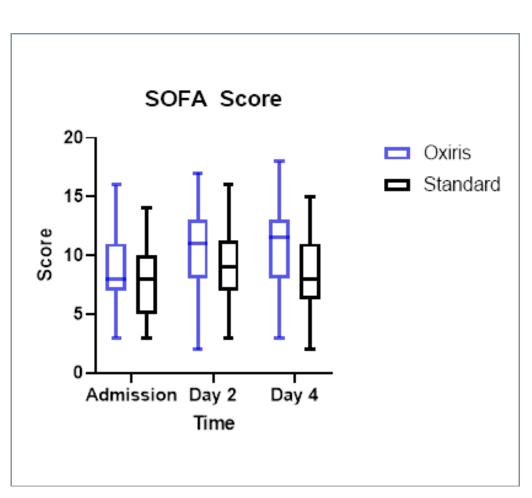


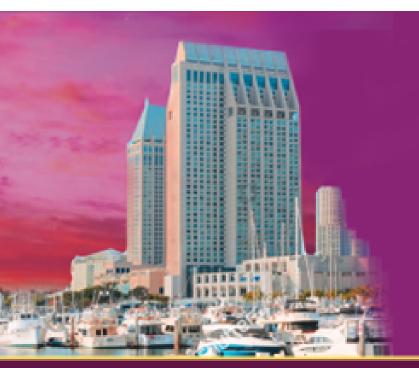
Figure 1. Interleukin 6 trend

Figure 2. Procalcitonin trend

Figure 3. SOFA evolution



Continuous hemofiltation with an oXiris® filter reduces the levels of inflammatory cytokines in septic shock, translating it into improvement in SOFA up to 96 hours. No differences were found in in-hospital or 28-day mortality probably due to the multicausal nature of mortality in the intensive care unit. However, a significant difference was found in ventilation days in favor of the oXiris filter.



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