Continuous Veno-Venous hemodiafiltration with novel adsorbing membrane in Septic Shock Patients Requiring Renal Support: Experience at a Private Hospital in Puebla, Mexico.



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Introduction

Excessive po-inflammatory and anti-inflammatory cyitokines are mediators for hemodynamic alterations and multi-organ failure in septic patients. Extracorporeal treatment with an hemofilter has been introduced to eliminate inflammatory response during sepsis-associated acute kidney injury. The aim of this study is to retrospectively review the medical records of septic patients submitted to continuous veno-venous hemodiafiltration (CVVHDF) high volume with a new adsorbing membrane for endotoxin, cytokine and fluid/uremic toxin removal, and evaluate the safety and cardiorenal response.



Methods and Materials

he medical records of 8 septic patients (7 men, 1 woman, age 54-90 y.o., with SOFA score >14) submitted to CVVHDF high volume with adsorbing membrane have been reviewed, from January 2021 to February 2022. The adsorbing membrane was used through continuous renal replacement therapy machines. At basal time, first 24 hr, and at the end of the treatment, the clinical data and the cytokines levels were analyzed.

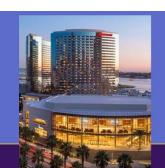
Results

All of the 9 patients had acute kidney injury (AKI). Every CVVHDF treatment was at least 24 h, with a maximum of 168 h. No AE events were reported. The main cardiorenal and respiratory parameters improved with a decrease of the amine requirements. Cytokines and procalcitonin activity assay decreased. SOFA score decreased. All the patients were discharged from the hospital alive.



Conclusions

In septic shock patients with AKI, CVVHDF with this new adsorbing membrane may be safe and improves the cardiorenal - function and the clinical condition. The effect on cytokines and fluid restriction post resuscitation may explain in part these results.



THE 28TH INTERNATIONAL CONFERENCE ON ADVANCES IN CRITICAL CARE NEPHROLOGY

AKI&CRRT 2023