

EFFECT OF EXTRACORPOREAL HEMOPERFUSION REMOVAL OF INFLAMMATORY MEDIATORS AND SURVIVAL IN END STAGE LIVER DISEASE PATIENTS WITH SEPTIC SHOCK

Dr. Dinesh Devarajan, Dr. Akila Rajakumar, Dr. Dinesh Jothimani Dr. Jagdish K

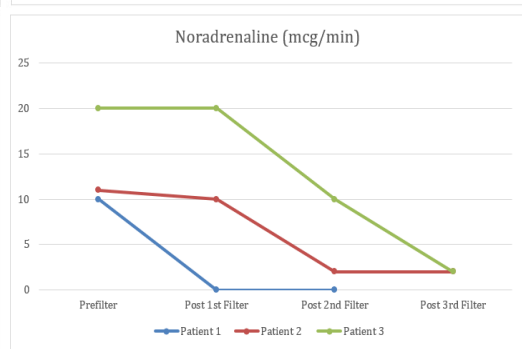
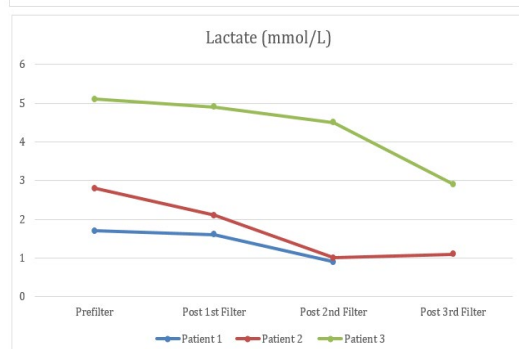
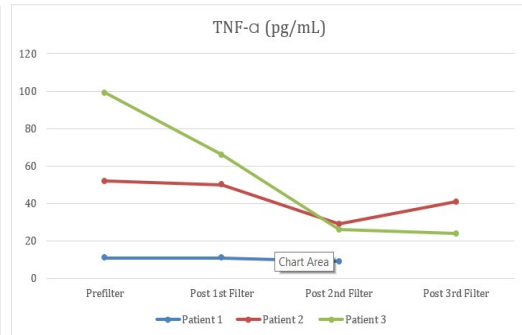
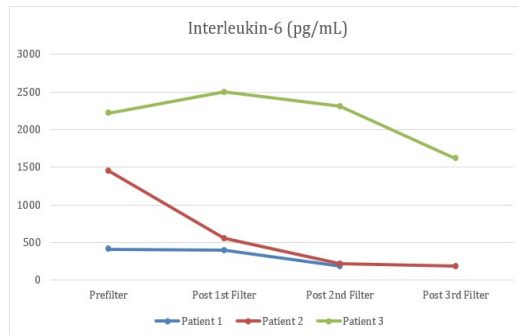
Institute of liver disease and transplantation, Rela institute and medical centre , Chennai

Objective: To study the effects of HA330 resin cartridge in patients with end stage liver disease presenting to critical care unit with septic shock, with regards to hemodynamic stability, lactate levels, levels of inflammatory mediators, requirement of other organ support and the length of ICU stay.

Inclusion criteria: Adult patients presenting within 24 hours of onset septic shock with noradrenaline requirement of more than 10 microgram /min, serum lactate >4mmol/L, APACHE-II SCORE <30.

Exclusion criteria: Age <18 yrs, severe cardiovascular and craniocerebral disease, severe coagulopathy, severe anemia, active bleeding, long term immunosuppressant therapy, noradrenaline requirement > 0.5mcg/kg/min or requirement of multiple vasopressors.

Methods: Three adult cirrhotic patients admitted to ICU with septic shock matching the inclusion criteria were subjected to hemoperfusion using HA 330 resin cartridge for a duration of 2-4 hrs for three consecutive days. HA 330 filter was applied to all three patients using regular dialysis machine. There was no indication for renal replacement therapy in all three patients. Serum levels of IL-6, TNF- α , lactate, dose of vasopressors, APACHE-II score before and after hemoperfusion were measured.



Results: All three patients were weaned off vasopressor dose by day 4 and discharged from ICU by day 5. The IL6, TNF alpha and lactate values decreased following third session of filter. None of the three patients required ventilator support or renal replacement therapy during their ICU stay. Patient 1 had neutropenia and so third filter was not initiated. No other complications were seen as part of hemadsorption cartridge use. All three patients had gram negative bacterial growth in their blood cultures which was treated with appropriate antibiotics.

Conclusion: HA330 filter effectively removed inflammatory mediators in adult cirrhotic patients with septic shock thereby improving the organ dysfunction and hemodynamic stability and decreased the ICU stay.

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