



Continuous Renal Replacement Therapy with Oxiris Filter in very Morbidly Obese Patient (Class III obesity) with Necrotising Fasciitis and MOF

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Background and Aim

Severe Necrotising fasciitis is a rapidly progressive, sudden onset severe infection of the fascia with secondary necrosis of the subcutaneous tissues. Risk factors include poor immune function with diabetes, cancer, obesity or intravenous drug use. It can lead to severe sepsis, septic shock, ARDS, Acute renal failure and Multi organ failure. Even with high quality treatment the mortality rate is up to 25-35%.

Use of CRRT with Oxiris filter in intensive care units for patients with septic shock, Acute renal failure and MOF along with source control is common. The therapy using The oXiris hemofilter, designed for endotoxin adsorption, can potentially remove inflammatory cytokines from the bloodstream, thereby reducing the overall inflammatory response, promoting the restoration of immune homeostasis allowing stabilisation of hemodynamics at a Usual dialysis dose of 25-30ml/kg for 24-72 hrs.

Case Study and Results

61 year old very morbidly obese gentleman (actual body weight of 250kg) with limited mobility, previous history of severe COVID 19 infection managed with non invasive ventilation and unnecessary prolonged use of steroids for one year. Presented with severe anterior abdominal wall necrotising fasciitis, septic shock, acute renal failure, moderate ARDS and multi organ failure.

Patient was started on septic shock management protocol along with broad spectrum antimicrobials, Non invasive ventilation with aggressive surgical debridement although continued to deteriorate thereafter decided to start CRRT with Oxiris filter at dialysis dose of 18ml/kg actual body weight (4500 ml) for 72 hrs with heparin anticoagulation. Infection markers and hemodynamics responded nicely followed by resolution of acute renal failure and shock state with continuous daily debridement under antimicrobial coverage.

Conclusion

Continuous Renal Replacement Therapy with Oxiris filter use in (Class III obesity) morbidly obese septic shock and multi organ failure patient at dialysis dose of 18ml/kg(actual bodyweight) is safe and effective.



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