



CYTOSORB TREATMENT IN SEPTIC PATIENT WITH RHABDOMYOLYSIS



Maltese Salvatore, Cacciattore Valentina, Iannetti cristina, Lentini Giuseppe, Mallia Laura, Mancuso Verdiana, Romè Maria Francesca, Salamone Benedetta, Scurria Rosa, Seminara Giuseppe

Ospedale San Giovanni di Dio, UO nefrologia e dialisi, Agrigento

INTRODUCTION

CytoSorb uses adsorption to enhance hemodialysis, enabling hemoadsorption-hemodialysis (HA-HD) for treating conditions like sepsis, multiple organ failure, liver failure, rhabdomyolysis, and drug overdose. CytoSorb is compatible with all extracorporeal circulation systems, including isolated hemoperfusion, ECMO, CRRT, and cardiopulmonary bypass (CPB).

METHODS

64-year-old male with a medical history for chronic alcohol use, smoking, drug abuse, and borderline personality disorder with aggressive and self-harming behavior. He was diagnosed with Crohn’s disease and had multiple colonic polyps removed for histological evaluation. He presented to the Emergency Department in a state of confusion, hypothermia, and arterial hypotension. Initial blood tests revealed azotemia (90 mg/dL), elevated creatinine (7.34 mg/dL; baseline: 1.12 mg/dL), markedly increased CPK (17,450 U/L), CK-MB mass (291 ng/mL), and elevated inflammatory markers. A diagnosis of acute kidney injury secondary to rhabdomyolysis in a septic patient was made. Given preserved urine output, treatment was initiated with intravenous hydration, urine alkalinization, and broad-spectrum antibiotics. He was admitted to the Internal Medicine Unit, later transferred to our unit. As his urine output progressively declined and kidney function did not improve, a central venous catheter was placed in the right femoral vein. The patient underwent three hemodialysis sessions, each utilizing 1 CytoSorb, to manage persistent renal impairment and systemic inflammation.

RESULTS

At the end of the first session: CPK 3897 U/L, CK-MB mass 9.6 ng/ml; after the second session: CPK 587 U/L, CK-MB mass 1.95 ng/ml; after the third session: CPK 220 U/L, CK-MB mass 2 ng/ml (figure 1). The patient, having suspended the replacement treatment and removed the CVC, was discharged and, at subsequent follow-ups, a progressive recovery of renal function and resolution of inflammation was evident.

CONCLUSION

CytoSorb contributed to recovery of renal function and supported the improvement of the patient's septic condition, demonstrating its value as an adjunctive therapy in complex clinical scenarios involving rhabdomyolysis and sepsis.

Figure 1: CPK levels at baseline and after 3 cycles of CytoSorb

