

POLYMXIN B HEMOPERFUSION IN PATIENTS WITH COVID-19 INFECTION AND ENDOTOXIN SHOCK: A CASE REPORT

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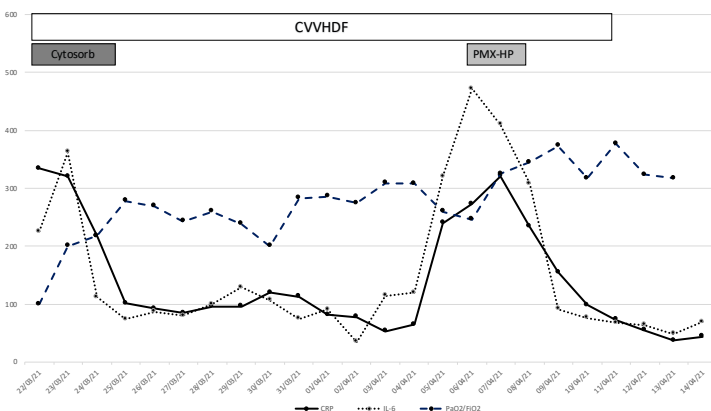
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The effectiveness of blood purification treatments in critically ill patients with COVID-19 infection is still object of debate. Some preliminary studies support the role of hemoperfusion with Polymixin B (PMX-HP) in the treatment of patients with COVID-19 and superimposed Gram-negative infection.

We describe the case of a 67-year-old man with a history of first-degree obesity and previous cholecystectomy, hospitalized at the Covid Intensive Care Unit after developing Acute Respiratory Distress Syndrome (ARDS). On day 23 after ICU admission, the patient presented oliguria (AKI stage 3), therefore continuous renal replacement therapy (CRRT) in CVVHDF mode was started in association with cytokine hemoabsorption with Cytosorb[®] due to laboratory signs of severe sepsis (elevated CRP, IL-6, procalcitonin); however, no significant clinical benefits were reported. On day 38, the patient underwent surgery for intestinal perforation and paralytic ileus. In light of positive blood culture for *Acinetobacter Baumannii*, endotoxic shock was suspected (endotoxin activity assay [EAA] 1.13); although EEA was out of the range 0.60-0.89, 2 treatments with PMX-HP (Toraymixin[®]; Toray Medical Co., Ltd., Tokyo, Japan) were performed in 48h, alternate with CVVHDF treatment. 72 hours after treatment, a progressive improvement of inflammation indexes, circulatory and respiratory efficiency and renal recovery were reported, with CRRT discontinuation on the 44th day. The patient was discharged from our hospital on day 50 to proceed with a rehabilitation program.



Treatment with PMX-HP may be beneficial in Covid-19 infected patients with concomitant superimposed Gram-negative infections.

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on

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