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Use of Continuous Venovenous Hemodiafiltration with a High Cutoff Membrane in a Patient with Severe Acute Pancreatitis

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ABSTRACT

In patients with severe acute pancreatitis (SAP) early and persistent elevated circulating levels of interleukins (IL)-1, 2 and 6 and tumor necrosis factor (TNF)- α are linked to severity of disease and early multiple organ failure (MOF), while persistently elevated serum IL-10 is linked to immune paralysis and infectious complications. Although experimental and clinical evidence exists that continuous venovenous hemodiafiltration with high cutoff membranes (HCO-CVVHDF) efficiently removes inflammatory mediators from blood of patients with severe sepsis or septic shock, data are lacking on the subset of patients with SAP, particularly in cases with uninfected necrosis. We treated with HCO-CVVHDF a 59-year-old man admitted to our intensive care unit (ICU) with SAP inducing early-onset cardiovascular, respiratory and renal dysfunctions associated with high circulating levels of IL-6 and TNF- α and without overt clinical or laboratory signs of infection. During the treatment, cardiovascular, respiratory and renal functions rapidly normalized and circulating levels of IL-6 and TNF- α consistently decreased. The patient was discharged from ICU on day 20.

KEYWORDS

Acute Pancreatitis; Multiple Organ Failure; Blood Purification

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