

SEPTIC ABORPTION-INDUCED AKI: EXTRACORPOREAL CYTOKINE REMOVAL IN AN UNUSUAL CLINICAL CONTEXT



M. Mattiotti^{3a}, F. Iacovella^a, V. Dalmastrì^a, C. Orsi^a, C. Coniglio^b, M. Baldazzi^b, F. Grammatico^a, P. Todeschini^a, G. La Manna^a

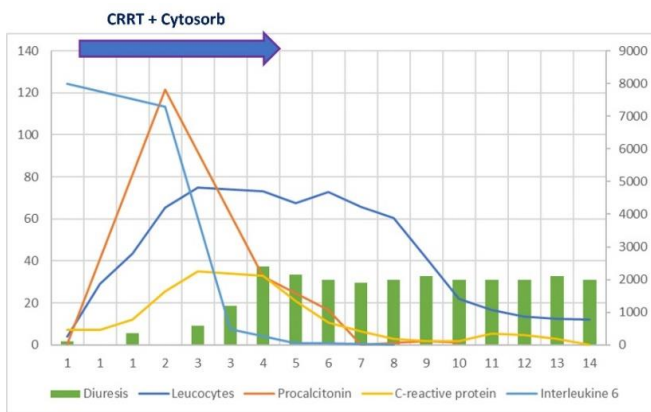
^a Nephrology, Dialysis and Renal Transplant Unit, IRCCS – Azienda Ospedaliero-Universitaria di Bologna, Alma Mater Studiorum University of Bologna, 40138 Bologna, Italy

^b Department of Emergency-Urgency Medicine, Intensive Care Unit, Maggiore Hospital, Bologna, Italy

Background: Pregnancy-related acute kidney injury (PR-AKI) is associated with high maternal and foetal morbidity and mortality. The changing landscape of epidemiological characteristics of the pregnant population has impacted the incidence, etiology and outcomes of PR-AKI: septic abortion, even if rarely observed in Western Countries, it may lead to renal cortical necrosis. We applied extracorporeal cytokine adsorption with the *CytoSorb* cartridge in addition to regular therapy with the aim of a better management of septic shock.¹

Case report: A 31-year-old female patient was admitted to Emergency Room of Metropolitan Hospital “Ospedale Maggiore” of Bologna (Italy) and in few hours delivered a stillborn foetus. In the following hours she showed a severe worsening of clinical condition until severe shock. She underwent an urgent radical hysterectomy and bilateral salpingectomy. After the intervention, she was admitted to Intensive Care Unit. Inotropic support through first and second line of vasopressors was started together with empirical antibiotic therapy. In this clinical context, she developed persistent anuria even though fluid replacement therapy and inotropic support were administered; CRRT treatment therefore started. Extracorporeal cytokine adsorption with *CytoSorb* (2 cartridge, used each for a 24 h cycle) were then combined as an adjuvant therapy in managing cytokines storm, typical of septic state². The adsorptive column was installed in series into the CVVHDF circuit.

Results After 4 days, patient’s clinical condition noticeably improved, haemodynamic stability was reached, a valid diuresis, a normalization of blood count and reduction of inflammatory markers could be documented (main results on *Table*). The patient was then discharged from ICU. After 14 days, the patient showed a complete recovery of AKI and a complete resolution of infection.



Conclusion Even though septic absorption is very rare, it is associated with an high risk of mortality; early treatment is associated with better outcomes and an higher likelihood of complete recovery of renal function. Along with aggressive therapy with fluid infusion, resuscitation support, vasopressors and broad spectrum antibiotics, an efficient removal of inflammatory mediators is helpful in blocking inflammatory cascade and therefore organ-specific damage³. Multidisciplinary medical team is always the best approach to critical patient with challenging clinical state.

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