

# Polymyxin B hemoperfusion in septic patients with acute myeloblastic and premyelocytic leukemia

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**Background** Infections are frequent complications in patients with malignant hematological disease and are associated with high morbidity and mortality.

**Methods** The study included patients with hematological neoplasms (acute myeloblastic or promyelocytic leukemia) who were undergoing chemotherapy (pre- or post-transplant) and developed sepsis or septic shock requiring organ support. The patients received one session of Polymyxin B hemoperfusion generally followed by at least 72 hours of CRRT as renal support.

**Results** Nine patients were included in this study. Of the 9 patients, 6 survived and were discharged from the ICU. In the 6 surviving patients a drastic reduction in PCT and CRP were observed after treatment with PMX-HP. No adverse events related to the PMX-HP treatment occurred.

**Conclusion** Patients with hematological neoplasms complicated with septic shock have a very high mortality. In our experience, Polymyxin B hemoperfusion therapy and CRRT in addition to conventional therapy seems to be a valid strategy to improve outcome in this type of patients.

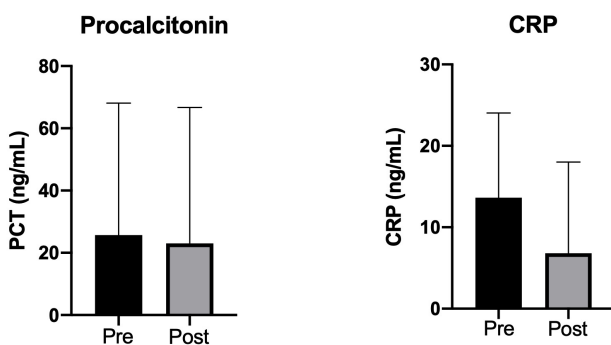


Figure A: Procalcitonin before and after PMX-HP treatment; Figure B: CRP before and after PMX-HP treatment