USE OF CYTOSORB IN CHILDHOOD ONSET SYSTEMIC LUPUS ERYTHEMATOSUS (c-SLE) SEPTIC SHOCK

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Background

The c-SLE is a rare connective tissue disorder, median age at diagnosis is 11-12 years. The cause of c-SLE death is usually the multi-organ dysfunction syndrome (MODS)sepsis-related. Here is a case report of 16 years old girl affected by cutaneous lupus Erythematosus (CLE) inappropriately treated at home and evolved in c-SLE.

Methods

On admission she presented malnutrition, saporous status, acute renal failure and dyspnea until acute respiratory failure requiring emergency intubation and inotropic support. Total body CT scan was performed with evidence of a massive ascitic effusion, alterated renal cortical density and pleural effusion. Blood test showed leukopenia= 2730 ul and platelet 47000 uL , PCR= 100 mg/dl , PCT > 1.5 pgr /ml, LDH > 400mg/dl, altered ferritin and triglyceride values compatible with initial macrophagehistocytic activation process(MAS). Broad-spectrum and targeted therapy was initiated on the basis of the antibiogram and the results of the cultures. In order to control the MODS linked to the septic state, Rescue therapy of three cycles of CytoSorb Absorber in post filter CVVHDF Prismaflex (Baxter) was performed over the following 3 days. Each cycle lasted 24 h, with heparinization and blood flow rate of 200 ml/min.

Results

Rescue therapy with cytokine apheresis with CytoSorb absorber , instituted early at the onset of MODS allowed reduction of organ dysfunction : rapid respiratory weaning at 48 hours, discontinuation of inotropic support at 24h after CytoSorb treatment. There was no recovery of renal function following stabilization of renal organ damage with AKI KIDNO SCORE 2. Initially APACHE II score calculated was 27 with 55% estimated non-operative mortality . A clear reduction in the risk of death was observed with a calculated APACHE II of 2 with estimated non-operative mortality < 4% ten days later at discharge.

Conclusion

CytoSorb immuno-apheresis has proven effective in our case in the treatment of MODS even in presence of acute and amplified dysregulation of innate and acquired immunity and insufficient immunological regulation of systemic inflammation as in c-SLE.