

# The use of CytoSorb in a Septic Shock patient with ARDS due to SARS-Cov-2



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## Background

Septic shock is a clinical condition of sepsis aggravated by circulatory, cellular and metabolic dysregulation. Diagnostic criteria include the need for vasopressors to maintain a PAM $>65$  and serum lactate levels $>2$  under adequate fluid therapy. Early identification of critically septic patients is necessary to allow early and adequate treatment with improved prognosis. In this case report we evaluate the hemodynamic impact of CytoSorb therapy in a case of septic shock in a patient with ARDS Sars cov2.

## Case Presentation

Patient with Sars Cov-2 ARDS was admitted to our department. He was intubated and had a SOFA Score 7. On day 15 the patient presented an increase in PCT CRP and WBC levels with the need for norepinephrine infusion. Empirical antibiotic therapy was started and after 24 hours also CytoSorb Therapy. Four CytoSorb cartridge columns were used. The first two were changed every 12 h and then the next two were changed every 24 h.

## Results

Two days after CytoSorb therapy there was an improvement in hemodynamic without the need of vasopressor support. There was also a reduction in inflammatory parameters and lactates. The trend of these values was shown in figure 1.

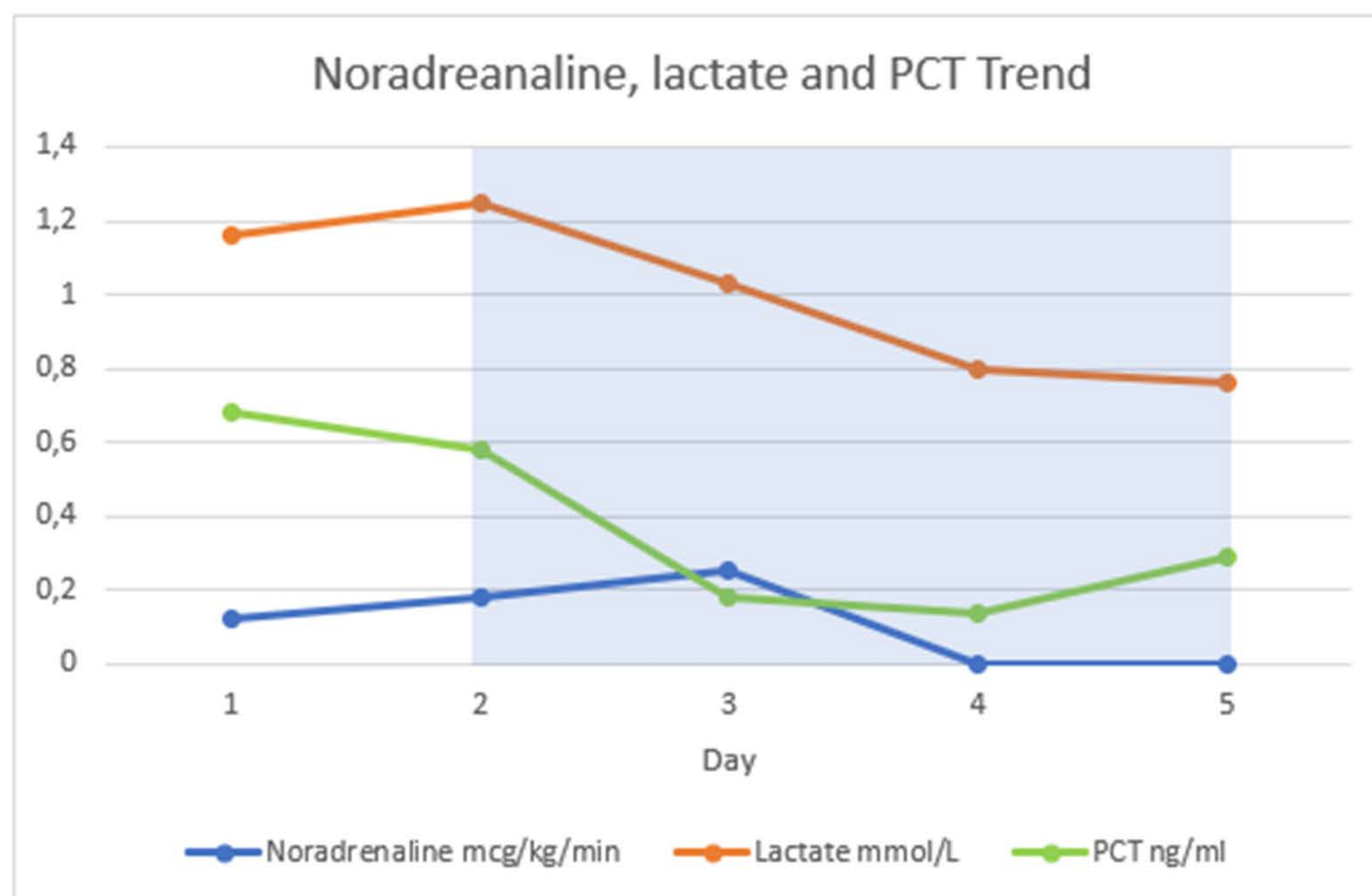


Figure 1: Noradrenaline, lactate and PCT trend; the light blue boxes denote the periods in which treatment with CytoSorb<sup>®</sup> was performed

## Conclusion

In this case report we evaluated the impact of CytoSorb therapy in a case of septic shock in a patient with ARDS Sars Cov-2. The early use of hemadsorption with CytoSorb combined with re-evaluation of antibiotic therapy resulted in a marked improvement in the patient's clinical status.