A Successfull Treatment of a Critically Patient with SARS CoV-2

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Background

The role of inflammatory cytokines is known in the pathogenesis of organ damage and is also confirmed in the context of COVID-19 disease. The modulation of the cytokine storm seems to determine endothelial protection, which can translate into a reduction of the "capillary leak syndrome", and, consequently, in a better control of the formation of edema and pulmonary infiltrates. CytoSorb stands in this context as a cartridge capable of adsorbing cytokines and allowing a better clinical course.

Case Report

A 69 years-old woman with a history of arterial hypertension, diabetes mellitus and CKD, was admitted to ICU for SARS Cov 2 related critical illness staged with chest CT, blood gas analysis and PCR. At the admission, the patient presented with ubiquitous interstitial pneumonia, PaO2 60 mmHg with 90% Airvo2 and PCR 36.67. Therefore, in order to remove inflammatory cytokines, the patient underwent hemoperfusion treatment with the CytoSorb adsorbent cartridge.

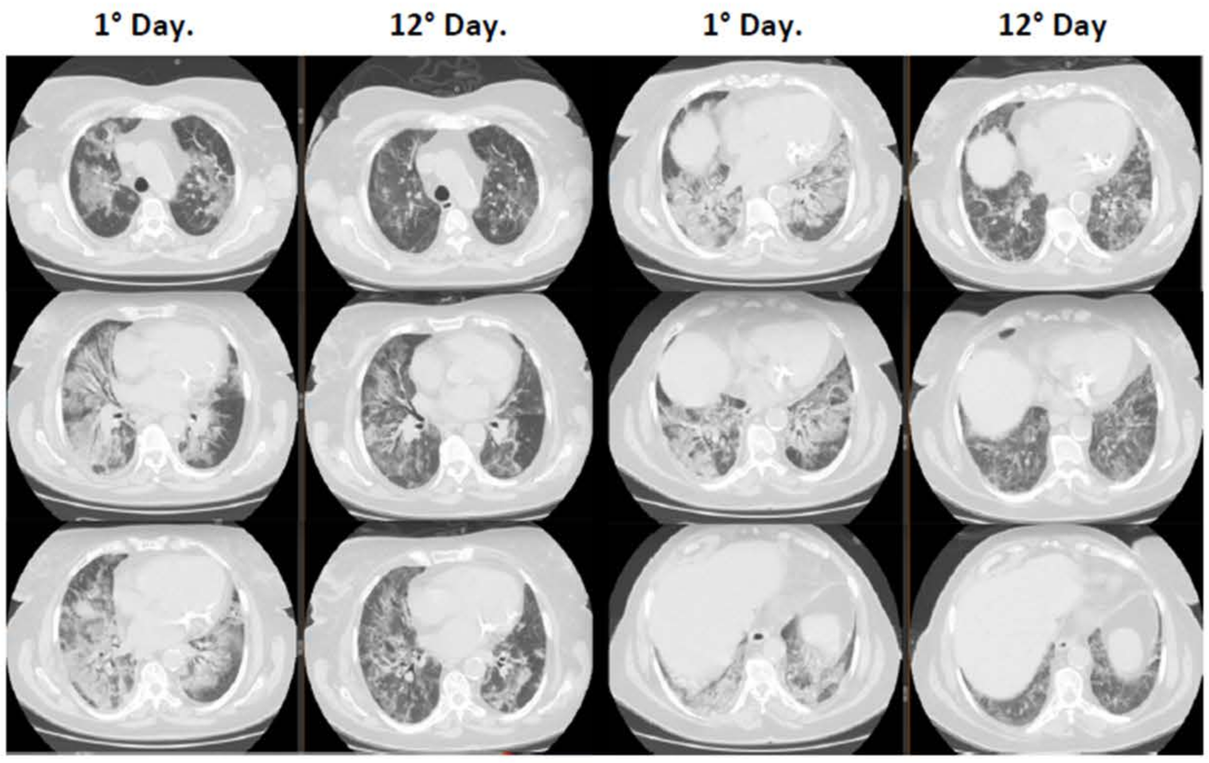
Methods

The protocol used is approved by the FDA for the treatment of covid patients and consists of the use of 4 cartridges 12h, 12h, 24h, 24h with measurement for each cycle of PCR, PaO2 and chest CT control.

Results

During the hemoperfusion whit CytoSorb, respiratory failure improved until the patient was discharged from the ICU on the tenth day, with oxygen support via simple facial mask. Below the progressive values of the PCR, PaO2 and the chest CT control on the twelfth day.

Filters	PCR	PaO_2	Filters	PCR	PaO_2
1°	10.41	60	3°	6.69	90
2°	10.19	70	4°	4.2	102



Conclusions

The hemoperfusion treatment with the CytoSorb adsorbent cartridge proved to be a valid adjuvant therapy in determining a better clinical course both in terms of the need for invasive mechanical ventilation and survival.