

# Clinical Outcomes Of COVID-19 Patients Who Underwent Hemoadsorption Therapy

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## Background

COVID-19 is an infectious disease caused by the novel coronavirus SARS-CoV-2. Majority of the patients experience mild to moderate disease. Approximately 14% of the patients experience severe disease and 5% develop respiratory failure or multi-organ failure<sup>[1]</sup>. No therapy has been shown to conclusively reduce mortality in the critically ill patients.

## Methods:

- A total of 41 COVID-19 patients were admitted to the ICU and 14 (34.1%) patients received hemoadsorption therapy.

## Results:

- Ten (71.4%) of the patients who underwent hemoadsorption therapy were successfully extubated and discharged from the critical care unit.
- Three out of the four patients who succumbed had a delay in initiating the hemoadsorption therapy due to delayed consent.
- One patient who succumbed had progressed well after the hemoadsorption therapy but had a sudden cardiac arrest following an arrhythmia.

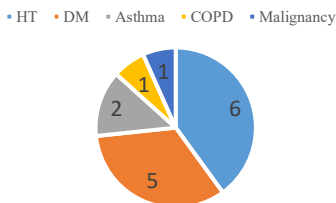


Fig1 Comorbidities of ICU COVID-19 patients who received hemoperfusion

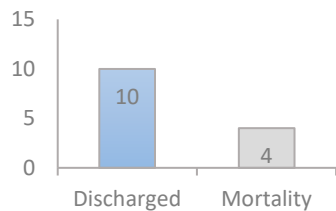


Fig2 Mortality of ICU COVID-19 patients who received hemoperfusion

## Discussions

- Hemoadsorption therapy using HA-330 cartridges is a promising therapeutic option for the treatment of severe disease. It works by removal of all cytokines during the cytokine storm which is postulated to cause severe disease and multi-organ dysfunction.

## Conclusions

- Hemoadsorption is a promising modality of treatment for COVID-19 pneumonia with severe acute respiratory distress syndrome.
- HP has to be initiated early to get good clinical outcomes
- More definitive conclusions from RCTs are needed

## Bibliography

1. Wu Z et al, JAMA 2020; 323:1239

38<sup>th</sup> Vicenza Course on AKI&CRRT  
a week of virtual meetings

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