

# THE EFFICACY OF EARLY ADDITIONAL HEMOPERFUSION THERAPY FOR SEVERE AND CRITICAL COVID-19 PATIENTS IN A TERTIARY HOSPITAL : A PROSPECTIVE COHORT STUDY

Karjundid Surasit, MD<sup>1</sup> Nattachai Srisawat, MD, PhD<sup>2</sup>

<sup>1</sup>Nakornping Hospital, Chiang Mai, Thailand <sup>2</sup>Division of Nephrology, Department of Medicine, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand.

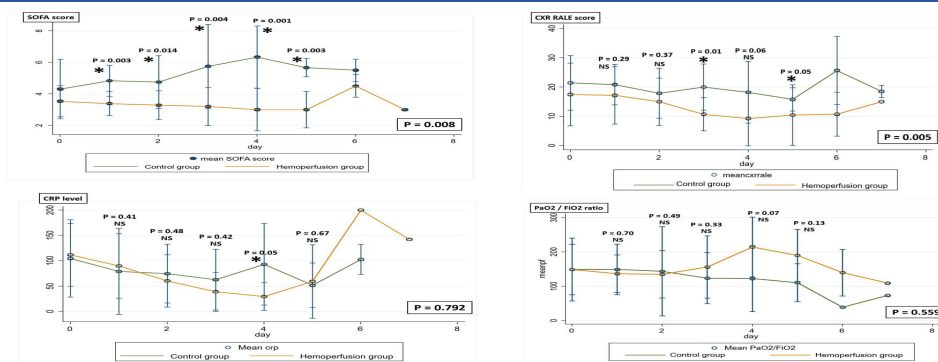
## Objectives

- To investigate the effects of early HA-330 hemoperfusion in combination with standard therapy in severe COVID-19 patients.

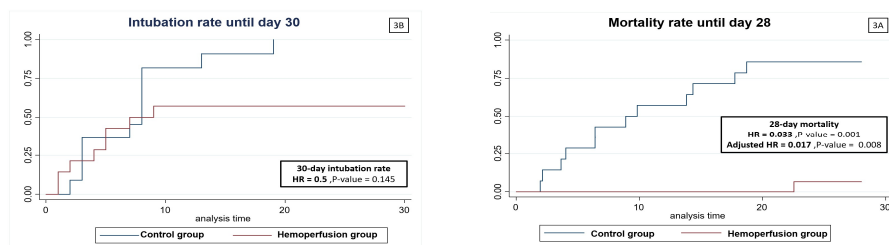
## Methods

- Single center, prospective cohort study on severe COVID-19 patients who admitted to ICU
- Compared patients in **“Hemoperfusion group”** (defined as patients who were treated with hemoperfusion therapy at least 3 sessions in combination with standard therapy : N =15) with **“Control group”** (defined as patients who received standard treatment alone or received less than 3 sessions of hemoperfusion therapy : N =14)
- **Hemoperfusion method:** HA-330 disposable hemoperfusion 1 session/day (Jafron Biomedical) : Duration of each session 3-4 h for 3 consecutive day
- **Primary outcomes :** Daily C-reactive protein , PaO<sub>2</sub> and ratio of PaO<sub>2</sub>/FiO<sub>2</sub> , severity scoring of lung infiltration on the chest x-ray (CXR RALE score) and organ failure (SOFA)
- **Secondary outcomes :** Ventilator free day, Hospital mortality and 28-day mortality

## Results



- SOFA score and CXR infiltration score were improved significantly in hemoperfusion group.



- 28 day mortality was reduced significantly in hemoperfusion group.

## Conclusion

- In severe COVID-19 patients, the addition of at least 3 sessions of hemoperfusion therapy to standard therapy seemed to improve severity of organ failure , CXR severity score, ventilator-free day and reduced the mortality rate.