

Editorial

Treatment with Corticosteroids in Critical, Severe and Non-Severe COVID-19

Attapon Cheepsattayakorn*, Ruangrong Cheepsattayakorn¹

1. Department of Pathology, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand.

***Corresponding Author: Dr. Attapon Cheepsattayakorn**, 10th Zonal Tuberculosis and Chest Disease Center, 143 Sridornchai Road Changklan Muang Chiang Mai 50100 Thailand.

Received Date: September 17, 2020

Publication Date: October 01, 2020

Glucocorticoids or corticosteroids have main anti-inflammatory effects to inhibit a vast number of pro-inflammatory genes that involve encoding of cell adhesion molecules, chemokines, cytokines, inflammatory receptors and enzymes to restore homeostasis and address the inflammatory process. A previous systematic review and meta-analysis revealed that severe COVID-19 patients were more likely to require corticosteroids treatment (RR = 1.56, 95 % CI = 1.28-1.90, $p < 0.001$). The length of stay (LOS) was longer in the corticosteroid group (WMD = 6.31, 95 % CI = 5.26-7.37, $p < 0.001$, $I^2 = 1.8\%$, $p = 0.361$) as well as the same results in the subgroup analysis of SARS-CoV-infected patients (WMD = 6.34, 95 % CI = 5.24-7.44, $p < 0.001$, $I^2 = 50.3\%$, $p = 0.156$). X et al demonstrated that COVID-19 patients treated with corticosteroids were more likely to be associated with harm, whereas Russell et al concluded that neither inhaled or systemic corticosteroids was distinguished.

The WHO recommends systemic corticosteroids rather than no systemic corticosteroids for the treatment of critical and severe COVID-19 patients (strong recommendation, based on moderate certainty evidence). Even the WHO's strong recommendations, these recommendations should not be applied to patients in whom the intervention is contraindicated as determined by the treating clinician. These recommendations are applied to critical and severe COVID-19 patients regardless of hospitalization status.

The WHO suggests not to use corticosteroids in treating non-severe COVID-19 patients (conditional recommendation based on low certainty evidence). In conclusion, urge caution before using corticosteroids for ARDS-associated COVID-19. Corticosteroids are not recommended for mild COVID-19 patients. Moderate corticosteroids can be used in critical and severe COVID-19 patients. Currently, there has been no enough clinical trials or observational studies to examine the use of ICS in COVID-19. A rigorous blinded randomized multicentric clinical trials are urgently needed to further conclusion verification for the harm or the benefit of corticosteroid treatment with confidence.

Volume 1 Issue 2 October 2020

©All rights reserved by Dr. Attapon Cheepsattayakorn.