LETTER

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Role of Corticosteroids in treating patients with Covid symptoms

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ABSTRACT

Letter to the editor: Role of Corticosteroids in treating patients with Covid symptoms

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Corticosteroids have a strong anti-inflammatory effect and are often used as a supplement of treatments for viral pneumonia. But the use of systemic corticosteroids in the treatment of COVID-19 infection, is debated. Corticosteroids can cause a drop in body temperature, which can help with the poisoning symptoms associated with hyperthermia.

Corticosteroids are used to treat SARS and have been used effectively in reducing mortality in serious SARS patients [1,2]. Despite the World Health Organization's advice against regular use of systemic corticosteroids in COVID-19 patients [3], the Chinese Thoracic Society's consensus statement recommends judicious use of corticosteroids in these patients [4]. Apart from immunosuppressive properties, corticosteroids have anti-inflammatory properties that minimize systemic inflammation, decrease exudation into lung tissue, encourage inflammation absorption, and prevent alveolar damage [5]. These corticosteroid effects assist in the relief of hypoxemia sooner, preventing the development of respiratory insufficiency, and are thus related to better primary and secondary outcomes. The use of corticosteroids was shown to be successful in the vast majority of SARS patients in a retrospective study [6].

Furthermore, a study found that corticosteroid therapy can cause serious side effects such as bacterial infection and hypokalemia in patients [7]. Corticosteroids were linked to higher mortality, longer ICU stays, and a higher risk of secondary infection, but not mechanical ventilation days, according to a meta-analysis of corticosteroid usage in patients with influenza pneumonia [8]. Furthermore, a meta-analysis of ten studies involving 1137 recovered SARS patients found that patients who obtained higher average doses of steroids and for longer periods of time were more likely to develop osteonecrosis [9].

In addition to treatment timing, mastering treatment duration and selecting appropriate corticosteroid formulations and dosage are critical. The following two aspects of corticosteroid formulation selection are fundamental: a short half-life and good penetrating ability.

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