Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Letter to Editors

Dapsone, colchicine and olanzapine as treatment adjuncts to prevent COVID-19 associated adult respiratory distress syndrome (ARDS)

A novel coronavirus (COVID-19) has caused a global pandemic. There is currently no vaccine or antiviral treatment. The most serious complication from COVID-19 is death often from acute respiratory distress syndrome (ARDS) [1].

Neutrophils are chemotaxic to many signaling gradients, interleukin-8 (IL-8) being one. ARDS patients have elevated IL-8 in bronchoalveolar lavage fluid and other neutrophil chemoattractants are present and act in synergy with that IL-8 [2].

Evidence points to the ability of dapsone to inhibit neutrophil chemotaxis to both N-formylmethionyl-leucyl-phenylalanine and to IL-8 via interference with neutrophils' adherence functions [3,4].

To work in concert and synergy with with Dapsone, we note that colchicine [5]—a drug that has been used for millennia—is also a potent neutrophil inhibitor working by inhibiting microtuble polymerization.

One risk factor for mortality identified in patients hospitalized with COVID-19 infection is elevated Il-6 levels [1]. Histamine acting through the H1 receptor is a strong positive regular of Il-6 [6]. Atypical antipsychotic medications such as olanzapine and quetiapine are particular potent H1 antagonists [7,8] and thus we think thus could be most useful in lowering Il-6 levels.

A trial of dapsone 100 mg every 12 h, colchicine 0.4 mg daily and olanzapine 10 mg daily in hospitalized but not yet ventilated patients may be warranted.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.mehy.2020.109774.

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