

## Tranexamic Acid: A Potential Treatment Option for Coronavirus Disease 2019

Sir,

COVID-19 has multifaceted presentations and majority of the patients are asymptomatic. Nevertheless, there is a subgroup of patients who tend to present with moderate-to-severe disease. Age, gender, socioeconomic status, and comorbidities such as diabetes mellitus, hypertension, cardiovascular disease,

chronic lung and kidney disease, history of cancer, smoking, and obesity have been associated with moderate to severe disease.<sup>[1]</sup>

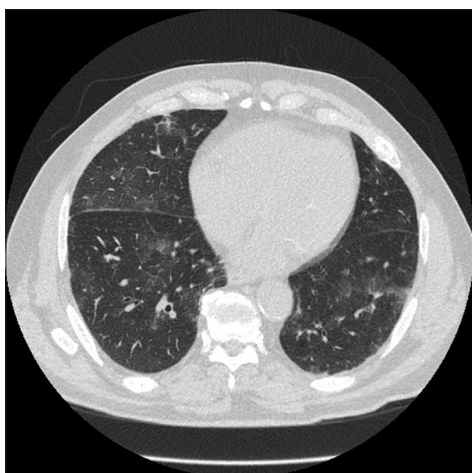
Herein, we report a novel case of an 82-year-old gentleman, with multiple comorbidities including hypertension, coronary artery disease, history of prostate cancer, marginal zone

lymphoma, myelodysplastic syndrome, and body mass index of 32 kg/m<sup>2</sup>, who was tested positive for SARS-CoV-2 reverse transcription-polymerase chain reaction and was predicted to have severe COVID-19 but only presented with mild symptoms with no signs and symptoms of pulmonary involvement or “cytokine storm.” Inflammatory markers including D-dimer, lactate dehydrogenase, C-reactive protein, and ferritin were 587 ng/ml (0–500 ng/ml), 232 U/L (122–222 U/L), 1.1 mg/dl (0–0.8 mg/dl), and 657 ng/ml (24–336 ng/ml), respectively. Chest X-ray showed bilateral infiltrates and computed tomography of the chest showed multifocal ground-glass opacities [Figure 1].

This interesting observation may be due to the medication – tranexamic acid (TXA) that he has been taking since October 2019. TXA has anti-inflammatory properties via inhibition of plasmin-mediated activation of complement, monocytes, and neutrophils, as well as modulates various cytokines and cellular immune markers.<sup>[2]</sup> Draxler *et al.* have demonstrated a significant reduction in tumor necrosis factor-alpha and interleukin-6 after the administration of the TXA in healthy individuals.<sup>[3]</sup> Moreover, TXA has also been reported in modulating coagulopathy by direct inhibiting of plasmin-mediated fibrinolysis.<sup>[4]</sup> The novel observation of potential cytokine storm suppression in this patient on TXA has opened a door for potential use of this medication as part of COVID-19 management. The anti-inflammatory and antifibrinolytic activities of TXA may shed a light in the future treatment for COVID-19.

### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other



**Figure 1:** Computed tomography of chest showed multifocal ground-glass opacities, more on the peripheral and basal regions, consistent with COVID-19 picture

clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

### Conflicts of interest

There are no conflicts of interest.

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