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CASE REPORT

High-Dose Intravenous Ascorbic Acid in COVID-19 Patients: A Case Report

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ABSTRACT

To date, medical treatment of the COVID-19 virus has focused largely on administration of anti-viral medications such as Remdesivir, in addition to steroids such as Dexamethasone, while neglecting to mention additional powerful tools such as intravenous high-dose ascorbic acid, vitamin D, zinc and zinc ionophores including Ivermectin, quercetin, and epigallocatechin-3-gallate (EGCG). High-dose intravenous ascorbic acid is non-toxic, readily available, easily administered and economical when compared to Remdesivir and other anti-viral drugs in ICU settings. The following case report illustrates the importance of condition appropriate concentration of intravenous ascorbic acid in the treatment of acute SARS-CoV2, and should be considered as a template for treatment.

INTRODUCTION

Most COVID-19 cases do not end in SARS-CoV2 syndrome (Jin Y et al., 2020). However, when the illness progresses to the cytokine storm that is characteristic of the severe viral syndrome, patients often end up in the ICU with mechanical ventilators as an end-stage of treatment. This is a result of rigid clinical standard of care guidelines that are traumatic, expensive and not particularly effective (Spinner CD, et al., 2020; Fan E, et al., 2020). While combined approaches are now understood to be the most effective in treating COVID-19 (Marik PE et al. 2020), they are not always possible. The following case report illustrates the potential benefit of including high-dose intravenous ascorbic acid as an adjunctive treatment for COVID-19 patients.

NARRATIVE

A healthy, 71 year old retired medical doctor with no comorbidities began experiencing a dry hacking cough on the night of Friday, June 5, 2020 that made it impossible to sleep. He immediately began taking a liposomal vitamin C preparation (1,000 mg/dose) every hour, monolaurin, Solu-cortef (2 doses of 50 mg by intramuscular injection, 8 hours apart) and an intravenous vitamin and mineral (Meyers Cocktail) push. All of these had no observable effect on his symptoms.

On Monday, June 8, the doctor received 25,000 mg of ascorbic acid by intravenous infusion. The cough changed to a muco-purulent, highly productive cough (approximately half a cup of sputum expectorated in a night). The following day a worsening in cough accompanied by difficulty in breathing with periodic losses of consciousness ensued. At this time blood sugar was normal with blood pressure of 137/90, ear temperature of 37.5C, O2 saturation of 92% and pulse of 84bpm. At this point, family members began urging him to go to the hospital, but his fear of the possibility of intubation prevented him from going.

An subsequent intravenous infusion containing 50,000 mg of ascorbic acid resulted in an improvement of cough and conditions. Upon remembering that an orthomolecular colleague had mentioned that some viruses require up to 200,000 mg of ascorbic acid before improvement is seen (Levy T, 2002), the doctor prepared 4 intravenous bags containing 5% dextrose (D5W 250ml), 50,000 mg ascorbic acid, and 4ml magnesium sulfate (MgSO4). These were administered back to back over several hours, resulting in the condition dramatically improving. Upon measuring, ear

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temperature was 37.1C, O2 saturation was 94%, pulse was 79bpm and blood pressure was 134/89. His cough became much less severe, and sleep improving dramatically.

On the 10th and 11th of June, 50,000 mg of intravenous ascorbic acid was repeated, resulting in progressive improvement each day.

DISCUSSION

The prevention of progression from COVID-19 infection to cytokine storm is the focus of most in-hospital treatments for severely ill patients. High-dose intravenous ascorbic acid exerts anti-inflammatory, antioxidant, and immune modulating properties. It also increases synthesis of type I interferons (Colunga Biancatelli RML, et al., 2020) and thrombomodulin (Marik PE, 2018) while decreasing platelet activation and tissue factor expression. These attributes are all highly desirable within COVID-19 treatment framework, as coagulopathy and compromised immune function are key features in comorbidities such as obesity and diabetes. These patient comorbidities are most prevalent in areas such as the USA and India, where high glycemic carbohydrate consumption and its ensuing hyperglycemia leads to lower ascorbate bioavailability due to competition with glucose (Audette et al., 2020).

CONCLUSION

While the 'standard of care' guidelines defined by the World Health Organization and other public health consensus groups have undergone many revisions as new information becomes available, the prevailing treatment approach has consistently avoided any mention of non-patentable compounds such as vitamins C and D, zinc and zinc ionophores as part of the solution. Although many clinical experts, such as the Front Line COVID-19 Critical Care (FLCCC) Alliance and members of Orthomolecular Societies, are advocating for approaches that integrate the use of nutrients, their calls to action continue to be ignored by the medical establishment and governmental organizations – to the detriment of patients who have suffered or died as a result of treatment limitations which appear to be overtly political in nature.

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