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Updates on the Use of Ozone Therapy in Patients with COVID-19. A Review

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Abstract

To date, there are no specific antiviral treatment strategies for COVID-19 patients. Empiric approaches used for other viral infections wasn't effective against SARS-CoV-2. Thus, some urgent therapeutic alternatives are still required. Ozone therapy could be favorable due to its effects. Therefore, authors conducted a comprehensive review to reassess the reported adjuvant clinical potency and the last medical approaches towards patients with SARS-CoV-2 virus or COVID-19. Relevant articles were searched in PubMed, Hinari and SpringerLink, National Center of Biotechnology Information, and Medline using keywords "COVID-19", "SARS-CoV-2", "ozone therapy", "mechanisms of ozone", and "biological effects of ozone", as well as their combinations. A total of 475 publications found were compared to exclude duplicates. The collection was reviewed and articles were filtered by title and abstract content. The remaining articles were assessed in full to exclude case-control studies or articles without relevant conclusions. Finally, 49 relevant sources were selected as representative. Ozone therapy has shown various beneficial properties: antiviral, immunomodulatory, antioxidant, anti-inflammatory, and cytoprotective effects, that can be useful in managing tissue damage occurring in many inflammatory illnesses, including viral infections like SARS-CoV-2. It can enhance the respiratory parameters, blood gas indicators, overall health condition, leading to a faster patient recovery.



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Despite encouraging preliminary data from ongoing clinical trials, as well as expert opinion, there is still not enough evidence to confirm that it is a viable treatment for patients with COVID-19.

Keywords: Covid-19, ozone therapy, ozone action mechanisms

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