LETTER TO THE EDITOR

Hyperbaric Oxygen: A Lifesaver During COVID-19?

Dear Editor

Coronavirus (COVID-19) has become a worldwide pandemic after its emergence in late December 2019. The virus has evolved through mutations such as alpha, beta, gamma, delta, and epsilon variants. The one becoming variant, becomes precarious.[1] COVID virus spiked a surge in hospitalizations and equipment utilization, as well as a scarcity of critical care resources.[2] The precautionary measures, such as the use of masks and hand sanitizers, are advised to contain the virus.[3]

Hyperbaric oxygen treatment is expected to be a feasible stakeholder for treating COVID-19 in its advanced stages. In this medical treatment, patients are placed in a hyperbaric chamber, where high-pressure oxygen is delivered 2-3 times.[3] At high atmospheric pressure, oxygen inhalation absorbs fifteen times more oxygen into the plasma than the typical amount, ensuring red blood cell saturation. This high oxygen concentration helps to reduce inflammation, promote healing, reduce edema, and increases blood flow in the areas where oxygen is sparse. HBOT hastens wound healing and assists in the treatment of diseases such as hypoxia. As COVID-19 destroys the linings of the lung walls and air sacs, HBOT might be a game-changer in the fight against COVID-19. Because the immune system attempts to fight it off, when the lungs become inflamed and fluid begins to build up in the lungs.[1]

HBOT can also be the best option for treating progressive hypoxemia in COVID-19 individuals who cannot be treated with ambient oxygen. Furthermore, it aids in the recovery of immunological and circulatory processes, as well as stress levels, therefore enhancing the overall health of patients.[4] HBO-treated COVID-19 patients reported improved survival. However, concerns exist whether their condition improved due to HBO2 or with time. Not everyone is recommended for HBOT. The HBO2 chamber should be avoided in patients with a temperature over 37.5°C, cough, or sputum, or a suspected COVID-19 patient. However, the therapeutic use of HBO2 in COVID-19 has been modest, although interest is growing, and several studies have been submitted online and are under consideration.[3]

The aetiology of COVID-19 is unclear, but many questions about HBO's potential therapeutic use in treating this condition are unanswered. However, if oxygen is administered between 1.5-3.0 ATA, the minimal atmosphere absolute (ATA), a range in which risks of side effects can be minimized and therapeutic results can be obtained.[2]

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