Asociación Argentina de Medicina Hiperbárica e Investigación

AAMHEI

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Hyperbaric Oxygen Therapy in COVID-19

The semiology of COVID-19 syndrome is becoming clear. However, the problem that governments have faced lies in the saturation of health services and insufficient ventilatory support devices for the volume of those infected, preventing the correct care of severe patients.

The Argentine Association of Hyperbaric Medicine and Research (AAMHEI) has investigated the potential role of Hyperbaric Oxygen Therapy (HBOT) in the treatment of patients infected with COVID-19. The association has delivered a series of documents and procedures to be applied as required by the health authorities.

In a first official document (COVID-19: Hypoxia, inflammation and immune response) it clearly expresses, according to the known physiological benefits, how HBOT could cooperate in the treatment and support of the infected patient, through its strong anti-inflammatory activity, modulation of the immune system and potential antiviral action, all typical of the hyperoxia generated with the treatment. (Document 1).

A second official document (Case report of the use of Hyperbaric Oxygenation Therapy in the treatment of severe cases of COVID-19) is based on newly published clinical evidence, where positive patients for COVID-19 were treated in the hyperbaric chamber in China. It is an interesting sample of patients with clinical respiratory symptoms, who significantly improved hypoxia and hypoxemia and it was corroborated by physical examination, laboratory, and images. Attached summary (2) and original document (3).

It is explained how HBOT would counteract the hypoxemia generated by Covid-19 by destroying hemoglobin. Therefore, this therapy could work efficiently as an adjuvant and support for patients with a hypoxemic clinical picture, since it would supply oxygen via plasma route. Analysis of the work by AAMHEI specialist (Covid: Hemoglobin and Hypoxia) (4) and Original document by Wezhong et al (5) are attached.

Finally, AAMHEI draws up the protocol for the use of the hyperbaric chamber in infected patients (Recommendations and Protocol for Hyperbaric Oxygen Therapy in COVID-19). With the correct diffusion, it could be useful in the different provinces of Argentina, with the currently available equipment.

The Association intends to present a proposal to be integrated into the developing National Emergency Plan. Hyperbaric Oxygenation Treatment could play a key role in the care of infected patients, according to their severity. It could also decompress the health service and offer a highly efficient, low-cost and easily applicable alternative, especially in the expected spike in May.

Dr. Mariana Cannellotto
AAMHEI President

Bioch. Liliana Jordá Vargas
AAMHEI Scientific Director

Dr. Fabrizio Verdini
AAMHEI Institutional Relationships