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THE USE OF EXTRABODY MEMBRANE OXYGENATION AS THERAPY IN PATIENTS INFECTED BY SARS COV-2: A LITERATURE REVIEW

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INTRODUCTION

As a technology that provides effective circulation and respiratory support for critically ill patients, ECMO is useful for improving blood perfusion and gaining valuable time for the cardiopulmonary system to recover. This form of extracorporeal circulation is, according to the World Health Organization, considered a rescue therapy for patients infected with SARS-Cov-2 with hypoxemia refractory to protective lung ventilation.

GOALS

To clarify, based on a literature review, how the benefits of ECMO therapy work in patients infected with the new coronavirus, evaluating data on its applicability in the current scenario.

METHOD

A bibliographical survey of articles was carried out in the last 5 years, using search bases such as PubMed and ScienceDirect, using the descriptors "ECMO", "Covid-19" and "therapy", 32 articles being selected for the preparation of this work.

REVIEW OF LITERATURE

In a retrospective study in China, 52 critically ill patients identified with SARS-CoV-2 were admitted to the ICU, among them, 31 patients died within 28 days, 6 received ECMO, 5 died and 1 patient was still on ECMO in its final phase. The PaO2/FiO2 ratio differed between survivors and non-survivors, indicating the severity of the disease and the prognosis. Still using Asian data, 234 cases of ARDS (Acute Respiratory Distress Syndrome) related to COVID-19 were studied, of which 17 (7.25%) received ECMO. The study showed a mortality rate of 94.1% in ECMO patients compared to 70.9% in conventional patients. There have been successful cases of treatment with the technique in question of seriously ill COVID-19 patients; however, the overall effect is not ideal and the fatality rate can be as high as 82.3% (14/17) or 83.3% (5/6).

CONCLUSION

Therefore, the benefits and risks of using ECMO in patients with COVID-19 are not yet clear. There is little experience with the use of extracorporeal membrane oxygenation to support these patients, and most studies have not shown relevant clinical results. Pertinent clinical evidence is scarce and, at present, the indications, management, benefits and risks of therapy are still controversial.

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