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LUNG TRANSPLANTATION AFTER COVID-19: FIRST ITALIAN EXPERIENCE

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Background

Severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2) typically targets the respiratory system, particularly the lung. The infection can exhibits a broad spectrum of severity, from asymptomatic up to acute respiratory distress syndrome (ARDS) requiring an urgent admission to the intensive care unit (ICU). Lung transplantation (LT) is an established therapy for end-stage chronic respiratory diseases. Its use in an acute setting, however, brings about some uncertainty do to the lack of experience, donor shortage, and the complexity of potential recipient assessment. We report our first two cases of LT for ARDS after SARS-CoV-2 infection.

Methods

We retrospectively collect data on the first two cases of bilateral LT for ARDS after COVID-19. We recorded data on pre-LT clinical course, transplantation management and outcomes.

Results

The COVID-19 clinical course was similar in the two patients. In both cases, transplantation was successful. The first patient is alive and in good condition 9 months after transplantation (last FEV1= 73%); the clinical course of the second patient was complicated by septic shock, and he died 62 days after surgery.

Conclusion

Our experience demonstrates the feasibility of LT for COVID-19. A dedicated protocol is mandatory to ensure the safety of healthcare professionals involved. Nonetheless, our second unsuccessful case raises some concerns: we recommend to reserve lung transplantation to highly selected patient, after thorough clinical, infective and psychiatric evaluation. In this circumstances, the ethical aspects must also be taken in consideration, with regard to the centre's mortality rate on waiting list. Since LT has a potential role in acute, sub-acute and chronic settings, it is vital to keep transplantation centre active during pandemic and to share knowledge on possible therapies for COVID-19.

Insert link to the video here::

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