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Clinical relevance of lung transplantation for COVID-19 ARDS: a nationwide study

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Lung transplantation offers excellent midterm outcomes and should be incorporated in the treatment algorithm of post-COVID-19 ARDS patients <https://bit.ly/33Djghz>

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Abstract

Background Although the number of lung transplantations (LTx) performed worldwide for coronavirus disease 2019 (COVID-19)-induced acute respiratory distress syndrome (ARDS) is still low, there is general agreement that this treatment can save a subgroup of the most severely ill patients with irreversible lung damage. However, the true proportion of patients eligible for LTx, the overall outcome and the impact of LTx on the pandemic are unknown.

Methods A retrospective analysis was performed using a nationwide registry of hospitalised patients with confirmed severe acute respiratory syndrome coronavirus type 2 (SARS-CoV-2) infection admitted between 1 January 2020 and 30 May 2021 in Austria. Patients referred to one of the two Austrian LTx centres were analysed, and grouped into patients accepted and rejected for LTx. Detailed outcome analysis was performed for all patients who received a LTx for post-COVID-19 ARDS and compared with patients who underwent LTx for other indications.

Results Between 1 January 2020 and 30 May 2021, 39 485 patients were hospitalised for COVID-19 in Austria. 2323 required mechanical ventilation and 183 received extracorporeal membrane oxygenation (ECMO) support. 106 patients with severe COVID-19 ARDS were referred for LTx. Of these, 19 (18%)

underwent LTx. 30-day mortality after LTx was 0% for COVID-19 ARDS transplant recipients. At a median follow-up of 134 (47–450) days, 14 out of 19 patients were alive.

Conclusions Early referral of ECMO patients to a LTx centre is pivotal in order to select patients eligible for LTx. Transplantation offers excellent midterm outcomes and should be incorporated in the treatment algorithm of post-COVID-19 ARDS.