Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Mechanical Circulatory Support in Lung Transplant Recipients: Early and Long-Term Survival

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Purpose: Lung transplantation can be performed off-pump with sequential one-lung ventilation or with mechanical circulatory support (MCS) either by using a cardiopulmonary bypass or veno-venous / veno-arterial extracorporeal membrane oxygenation. Furthermore, MCS might be necessary throughout postoperative course for improving pulmonary function. Here we aimed to investigate early and long-term survival of lung recipients, who are temporarily in need for mechanical circulatory support during lung transplantation and / or after and additionally who did not receive any mechanical circulatory support.
Methods: We performed a retrospective review of patients who underwent lung transplantation at our center between January 2009 and July 2021. We compared 100 days survival as well as five-year survival of lung transplant recipients, who received mechanical circulatory support intra- and postoperatively (group 1, n=14) vs. no mechanical circulatory support (group 2, n=14) or just intraoperatively (group 3, n=69). Survival depicted as Kaplan-Meier-Curves.
Results: Recipients treated with mechanical circulatory support intra- and postoperatively after lung transplantation (n=14), presented with pulmonary artery hypertension (n=5), pulmonary veno-occlusive disease (n=1), idiopathic fibrosis (n=2), Sarcoidosis (n=1) and chronic obstructive pulmonary disease (n=5). 100 days after initial lung transplantation 4 out of 14 patients were alive. Early survival between group 1 and 2 was 38.5% vs. 85.7% (p=0.0073) and as compared to group 3 38.5% vs 90.9% (p<0.0001). Five-year survival was 33.3% in patient group 1 compared to 67.3% in group 3 (p<0.0001) as well as 33.3% vs 64.3% when compared to patient group 2 (p=0.0262). Survival between group 2 and 3 did not differ significantly.
Conclusion: Here we report clearly that patients after lung transplantation who needed intra- and postoperatively mechanical circulatory support have a significantly reduced early as well as long-term survival compared to recipients without any need of mechanical circulatory support or only intraoperatively. Early and long-term survival of lung recipients treated with circulatory support only intraoperatively did not differ when compared to patients without any use of support.

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A Case of Prolonged Hospital Acquired COVID-19 Pneumonia in a Lung Transplant Recipient: Management and Outcome

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Introduction: Lung transplant recipients are at increased risk of SARS-CoV2 infection due to immunosuppression and their management has yet to be standardized. We report a case of prolonged COVID-19 infection in a lung recipient acquired after transplant during the hospital stay.
Case Report: A 52-year-old lady with interstitial disease associated to systemic sclerosis underwent bilateral lung transplantation on 04/10/21. Donors and recipient microbiological tests for SARS-CoV2 were negative on molecular swabs performed before transplantation (04/07 and 04/10). Transplantation was uneventful and the recipient was extubated the subsequent day. Twelve days later, a surveillance molecular nose-pharyngeal swab was positive for SARS-CoV2. The positivity for subgenomic analysis revealed productive infection. At first monitoring biopsy, multiple foci of diffuse alveolar damage, significant cytopathic features of pneumocytes, microthrombi of capillaries, and extensive edema were highly suggestive of COVID-19 pneumonia. High viral load was also detected in lung biopsy by RT-PCR. She presented mild respiratory symptoms (cough with low oxygen supplementation) and the CT scan revealed an area of consolidation at the right lower lobe. Monoclonal antibody therapy (Bamlanivimab and Etesevimab) associated with remdesevir was started, IV immunoglobulins were administered while mycophenolate mofetil was discontinued. The patient was closely monitored until the nose-pharyngeal swab turned negative two months after the first positivity associated with a significant clinical improvement. At the last follow-up, five months after transplantation, she had good pulmonary function, no immunological disorders and no signs related to long COVID-19.
Summary: This is a case of prolonged hospital acquired COVID-19 related pneumonia in a lung recipient. Immunocompromized patients present a longer viral clearance. In this fragile population a strict clinical, radiological and histopathological monitoring associated with encouragement of vaccination are mandatory.

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Direct Lung Procurement with Ongoing Abdominal Normothermic Regional Perfusion

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Introduction: Donation after circulatory death (DCD) has recently advanced with abdominal normothermic regional perfusion (A-NRP). The A-NRP technique has been implemented to minimize warm ischemic damage to the abdominal organs significantly improving recipient outcomes. There is now a necessity for a standardized and reproducible technique for direct procurement of cardiothoracic organs while A-NRP is ongoing.
Case Report: There were seven successful lung retrievals in the presence of A-NRP that we have performed and reporting. The mean age of the donors was 40 with 4 males. A-NRP was established either via femoral vessels or via the abdominal vessels after laparotomy while the chest was opened simultaneously. The cardiothoracic organs were isolated by