
iLA Membrane Ventilator Enables 36-Year-Old Woman To Survive 143 Days Until Lung Transplantation



Doctors from General University Hospital in Prague saved the life of a 36-year-old woman and mother of a two-year-old child who urgently needed a lung transplant. She survived an incredible 143 days without a full working lung — due to the support of a device called iLA Membrane Ventilator.

The iLA Membrane Ventilator is an extracorporeal ventilation system which is used primarily to remove CO₂ from the patient. The system “breathes” outside of the body and carries out some gas exchange work of the native lung because the heart pumps blood through it as it does through the natural organ.

This therapy has now enabled a 36-year-old woman with severe pulmonary hypertension to survive an incredible 143 days to a lung transplant. A team of doctors from the General University Hospital in Prague used this unique form of lung support with the iLA Membrane Ventilator. The procedure involves the creation of a bypass between the main pulmonary artery, which carries blood from the heart to the lungs, and the left atrium, where oxygenated blood normally flows.

The mother of a two-year-old child was admitted without much chance of survival in December 2019. She suffered from a severe history of pulmonary hypertension, which had such a negative effect on her lung function that her blood was no longer able to flow through the lungs and be enriched with oxygen. Her only chance seemed to be a lung transplant, for which one usually has to wait between three and four months. The iLA Membrane Ventilator was successfully implanted with the support of the University Hospital Regensburg (specialists in extracorporeal heart and lung support). The therapy improved the function of the right ventricle and the entire organism. After a few days of treatment, she could move around in the hospital and improved her nutrition, which significantly enhanced her general condition for the coming transplantation.

Ten possible donors were tested for blood group and lung size, before one donor met the necessary conditions for transplantation. The operation was carried out successfully in the middle of June this year. Since then, the patient is recovering in the hospital.

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