

## Heart-Liver Transplants Offer Hope for Those with Limited Options

The Cincinnati Children's heart-liver transplant team performed three heart-liver transplants from December 2019 to June 2020. This includes the first reported case of surgically placing a ventricular assist device (VAD) to bridge a patient with a failing Fontan circulation to successful heart-liver transplantation. That patient went home after receiving the VAD, improved his health significantly, and became a better transplant candidate.

As one of the few programs in the country to offer pediatric heart-liver transplants, this team is open to evaluations and referrals of pediatric and adult congenital heart patients who are experiencing heart and liver failure. The collaborative team performs multi-organ transplants with an en-bloc technique, where the heart and liver from the donor are left intact and transplanted as one bloc.

The program's most recent patient had a congenital heart disease and a rare genetic syndrome and became one of fewer than 20 children in the United States to ever undergo a simultaneous heart-liver transplant.

### Complete Care for Patients with Single Ventricle Defects

There is an increasing need for heart-liver transplants, particularly due to patients with a Fontan circulation living longer. "As these children grow older, their circulations often become vulnerable to various health issues, and the liver is frequently affected," explains David L.S. Morales, MD, director of Congenital Heart Surgery, and Heart and Lung Transplantation at Cincinnati Children's. "Now patients experiencing both heart and liver failure, including those with a Fontan circulation, are able to receive all the care they need here."

Today up to 70,000 people are living with a Fontan circulation. The Heart Institute's Adult Congenital Heart Disease (ACHD) Program has recently enhanced the care available to these patients with the addition of heart-liver transplants for appropriate patients as part of its Fontan Management Clinic. For some patients with a Fontan circulation, a heart-liver transplant is the only alternative to palliative care.

### Drawing on a Broad Range of Skills

The program combines the expertise of Cincinnati Children's surgeons and medical specialists in the Fontan

Management Clinic, led by Adam Lubert, MD. For adult cases, the team includes University of Cincinnati Medical Center experts to provide care.

Says Clifford Chin, MD, director of Pediatric Heart Transplantation, "It is our duty and responsibility as one of the top pediatric cardiology programs in the nation to offer these patients the full spectrum of care, including multi-organ transplants."

The Fontan Management Clinic currently has several patients listed or in evaluation for heart-liver transplantation. To discuss referral of a patient to our Heart-Liver Transplant Program, contact the Physician Priority Link at 888-636-7997.

16

Number of children ever who have had a heart-liver transplant (Through March 2020)

0-1

Number of children who have a heart-liver transplant per year

1997

Year of 1st pediatric heart-liver transplant

2006

Year of 2nd ever pediatric heart-liver transplant

Source: *United Network of Organ Sharing*