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Media Contact: Stephen Chavez Phone: +1 (210) 310-8215 E-mail: <u>stephen.d.chavez@gmail.com</u>

Availability of Suitable Donor Organs Increases to Meet Growing Need for Heart Transplants

US and European Donor Management Addressed at 36th Annual ISHLT Meeting

Washington, D.C. (April, 29, 2016) – At the 36th Annual International Society for Heart and Lung Transplantation (ISHLT) Meeting & Scientific Sessions, presenters shared the importance of increasing the source of hearts for transplantation through donation after circulatory death or DCD. One program utilizing DCD hearts was able to increase their heart transplant activity by almost 40 percent, hence reducing deaths on the heart transplant waitlist. Discussions took place during US and European Donor Management Consensus Conferences within the Meeting.

"The lack of suitable donor hearts for transplantation has severely limited access to this life saving therapy for patients with advanced heart failure," said Andrew Fisher, FRCP, Ph.D., 2016 ISHLT Meeting and Scientific Session Program Chair. "The ability to safely perform DCD heart transplant together with improved overall management of potential heart donors represents a substantial step forward in addressing this clinical challenge," said Fisher.

DCD Hearts Provide New Source

In a study presented by Simon Messer from the Papworth Hospital, United Kingdom, the team sought to discover if DCD hearts could help to increase the donor pool. They utilized normothermic regional perfusion (NRP) to restore function to the DCD heart to allow robust assessment of heart function prior to proceeding to clinical transplantation. Over the last year, ten patients were successfully transplanted thanks to this pioneering technique with 100 percent survival and a median five day intensive care stay. Their proficiency with NRP has allowed them to safely redefine the limits of DCD heart transplantation. Using both NRP and direct procurement, they have established a successful program with 19 successful DCD heart transplants to date. This has resulted in an unprecedented 40 percent increase in their overall heart transplant activity. Their vision for the future is to share their expertise and replicate this program for the global transplant community.

Going the Distance with DCD Hearts

Associate Professor Kumud Dhital, cardiothoracic and transplant surgeon at St. Vincent's Hospital in Sydney presented background translational research, which showed the Australian team performed successful DCD heart transplants. Since July 2014 nine transplants have occurred using DCD hearts. All nine patients remain healthy with normal heart function at nine months post-transplant. Dhital contributed the success of the transplants to utilizing two innovative strategies. First, utilizing supplemented cardioplegia, or the act of using a solution to stop and preserve the heart prior to removal.



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Second, to the use of ex-vivo technology for reanimation, support and reconditioning of the heart after transport, which is another key aspect of their program's DCD heart process. According to Dhital, the goal is to allow for better utilization of donated organs and diminish the number of patients on the transplant waitlist.

US and European Management Consensus

Kiran Khush, MD, MAS of Stanford University in California shared results, presented previously in Philadelphia, PA and in Brussels, Belgium, discussing the standardization of donor selection for heart transplantation. Altogether at the Consensus Conference, over 95 participants including cardiologists, cardiac surgeons, and transplant coordinators from over 40 transplant centers, participated in the discussion.

A primary observation of the group was that donor heart management and selection criteria varied greatly across centers. Additionally, they prioritized the most important donor risk factors in donor selection, which included older age, left ventricular function, and distance from transplant centers.

A highlight of the European Consensus meeting was discussion of DCD and organ preservation (heart and lung) focused on how to select the candidates and manage endof-life care, ex vivo preservation strategies and the potential for ex vivo resuscitation of the organs. As a takeaway, the Conferences aligned on future needs, including research on donor selection to gain data on selection criteria, and further discussions on regulatory oversight in donor selection and what that means for transplant centers.

About ISHLT

The International Society for Heart and Lung Transplantation (ISHLT) is a not-for-profit professional organization with more than 2,700 members from over 45 countries dedicated to improving the care of patients with advanced heart or lung disease through transplantation, mechanical support and innovative therapies via research, education and advocacy. For more information, visit www.ishlt.org.

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