

Submission No.: PG04-5435

Session : Postgraduate Course 4

Date & Time, Place : November 17 (Thu), 10:30-12:00, Room 5F-1

Session Title : Multi-organ recovery video session

Donor Operation in Heart Transplantation

Jae Suk Yoo

Asan Medical Center, University of Ulsan, Republic of Korea

Donor cardiectomy is the first-step operation of the heart transplantation. Despite the utmost importance of the procedure, donor operation is scarcely observed by the cardiothoracic surgical trainees. The authors, therefore, present a donor cardiectomy video with 'step-by-step' comments for educational purposes. In this particular case, the operation was performed by the heart, liver, and pancreas procurement teams. The first step of donor operation is reviewing all the relevant medical records and available resources of the donor hospital including surgical instruments. On arriving at the donor's operating room, the procurement surgeon must recheck the donor's condition which sometimes changes abruptly. Throughout the whole procedure, the procurement team must communicate with the recipient operation team in real-time to orchestrate the successful heart transplantation. After paying a silent tribute to the organ donor and their loved ones, a generous median sternotomy is performed. The midline incision is usually continued to the median laparotomy by the abdominal organ procurement teams. The sternal retractor is placed upside down not to interfere with the abdominal operation field by the crossbar. The heart dissection procedure is performed as demonstrated in the video clip. When the donor cardiectomy is performed, it is of paramount importance to interact with other organ procurement teams. Especially in case of concomitant pulmonary and/or hepatic procurement, the following issues must be discussed in detail; the incision lines between the pulmonary veins and the left atrium, the pulmonary trunk transection level, and the inferior vena cava transection level. In this process, adequate communications, polite and considerate attitudes are strongly encouraged. Once the heart is emptied and arrested with cardioplegia, the tissue becomes very elastic, which makes it hard to determine the exact amount of tissue even with a subtle retraction. The authors, therefore, prefer to use surgical marker pens to mark the agreed incision lines with other procurement teams before cutting the vessels and the left atrium, which is clear and easy to communicate. This video sketches the routines of cardiac donor operation by the heart procurement team of Asan Medical Center, Seoul, Korea, where the authors had been trained. We hope that this video would be helpful to the trainees along with other excellent references.