

## **THE PROBLEMS OF HEART TRANSPLANTATION**

A **heart transplant**, or a **cardiac transplant**, is a surgical transplant procedure performed on patients with end-stage heart failure or severe coronary artery disease when other medical or surgical treatments have failed. The patient's own heart is removed and replaced with the donor heart. Heart transplantation is not considered to be a cure for heart disease, but a life-saving treatment intended to improve the quality of life for recipients.

The first heart transplant from animal to human was performed in 1964 by James Hardy. It was the heart of a chimpanzee; the patient lived an hour and a half.

First successful transplant of a human heart made Christian Barnard in 1967. Despite the fact that the operation was carried out perfectly, patient lived only 18 days and died because of pneumonia.

Worldwide, about 3,500 heart transplants are performed annually. The vast majority of these are performed in the United States (2,000–2,300 annually). Cedars-Sinai Medical Center in Los Angeles, California, currently is the largest heart transplant center in the world, having performed 132 adult transplants in 2015.

Matching Donor and Recipient - severity of illness, same ABO blood type, donor weight must be close to recipient's, geographic location relative to donor, length of time at current status.

Care of heart transplant patients after surgery

Short- and long-term management of cardiac transplant patients involves cardiac support, as well as monitoring and treatment of rejection, infection, and malignancies.

Post-operative complications include infection, sepsis, organ rejection, as well as the side-effects of the immunosuppressive medication. Initiation of medications, particularly immunosuppressive agents begins on the day of the operation.

Outcomes

❖ Survival rates for people receiving a heart transplant have improved over the past 5 to 10 years - especially in the first year after the transplant.

❖ About 88 percent of patients survive the first year after transplant surgery, and 72 percent survive for 5 years.

❖ The 10-year survival rate is close to 50 percent, and 16 percent of heart transplant patients survive 20 years.

❖ After the surgery, most heart transplant recipients (about 90 percent) can come close to resuming their normal daily activities

❖ Similar survival rates between men and women.

Transplantation of mechanical heart done in Ukraine for first time ever

A mechanical heart has been transplanted into a patient in Ukraine - the very first time such an operation has been conducted in the country in 2016. This is according to Borys Todurov, the head of Ukrainian Heart Center clinic in Kyiv and a renowned heart surgeon. He says, the implant allows patients with difficult heart conditions to survive

and wait for the needed donor organ. The device has no expiration date, and some people have lived for more than 8 years with it already.

On October 16th, 2016, the second operation of mechanical heart implantation was successfully performed to save the life of Lyudmyla Filarenko. The operation was performed by the Heart Institute team under the leadership of the Institute's General Director, cardiac surgeon Boris Todurov.

Problems with the transplantation of organs in Ukraine relate to transplant from a living person and the dead. According to the Ukrainian legislation from a living donor organ can be transplanted only to his relative or husband/wife. The only exceptions are biological materials that are regenerated, for example, bone marrow. Moreover, to take an organ from such a donor can only after obtaining his written consent.

Even more difficult situation in Ukraine with cadaveric donation – transplantation of organs from a deceased person. In Ukraine, a so-called "presumption of disagreement" – if the person has not given written consent to donation after death, his organs can be used only after the consent of his relatives or wife/husband.

I think it is very indicative of the experience of Belarus. There exists a presumption of consent, so every person become a donor automatically. And if person does not agree, in advance (for life) put data in the register of dissent.

#### **REFERENCES**

1. [https://en.wikipedia.org/wiki/Heart\\_transplantation](https://en.wikipedia.org/wiki/Heart_transplantation)
2. [http://www.medicinenet.com/heart\\_transplant/article.htm](http://www.medicinenet.com/heart_transplant/article.htm)