Evaluating heart transplantation outcomes from marginal donors

Azadeh Sadat Naseri¹, Behnam Shakerian², Farzaneh Bagherpour¹, Haleh Ashraf³, Shahrokh Karbalai⁴, Abbas Soleimani⁵, Atieh Rezaei⁴, AmirAli Hamidieh⁶, Marzieh Latifi¹

¹Department of Cardiology, Sina Hospital, Tehran University of Medical Sciences, Tehran, Iran

²Department of Cardiovascular Surgery, Sina Hospital, Tehran University of Medical Sciences, Tehran, Iran

³Cardiac Primary Prevention Research Center, Sina Hospital, Tehran University of Medical Sciences, Tehran, Iran

⁴Department of Cardiology, Sina Hospital, Tehran University of Medical Sciences, Tehran, Iran

⁵Sina Hospital, Tehran University of Medical Sciences, Tehran, Iran

⁶Iranian Tissue Bank & Research Center, Tehran University of Medical Sciences, Tehran, Iran

Background: Considering lack of enough resources, such as artificial heart or ventricular assist devices for long term cardiac replacement therapy, we decided to evaluate those brain death cases, which seem non eligible as heart donor based on guidelines criteria, as marginal donors, but with no contraindication for replacement at preoperational evaluation.

Methods: This retrospective study was conducted on heart donors and their recipients at Organ Procurement Unit of Sina. Among the candidates, 75 were categorized as standard donors (group A) and 18 were marginal donors (group B), group C were heart recipients from standard donors, and group D were heart recipients from marginal donors.

Results: Based on this study 97 heart donors of a total number of 302 donors referred to Sina Hospital, 80.6% were sub grouped as group A, standard donor, and 19.4% group B as marginal group (older than 40 years, or with positive history of drug abuse or smoking, but based on echocardiography and coronary angiography, negative for HIV, or hepatitis infection). Their mean survival rate in groups C and D were 635.67 ± 434.75 and 508.46 ± 407.8 days respectively with no significant difference between survival rates in MD and SD recipients ($P=0.961$).

Conclusions: Based on this study, marginal donors could be eligible for harvesting, and decrease wait time for end stage heart recipients.

Corresponding author: Sanaz Dehghani

E-mail: sanaz_dehghani2002@yahoo.com

© The Korean Society for Transplantation

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.