

eComment. Marginal hearts: a second-round draft picks?**Authors: Elsayed Elmistekawy and Fraser D. Rubens**Cardiac Surgery Division, Ottawa Heart Institute, Ottawa, ON, Canada,
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We read with interest the article by Pinto and his colleagues, who describe a case report of coronary artery bypass grafting surgery (CABG) in a transplanted heart [1]. With increased longevity in Western countries, the number of patients with end stage heart disease is increasing and studies have reported that advanced age should not be a contraindication for heart transplantation [2]. On the other hand, this philosophical change will add to the recognized gap between available donors and recipients for heart transplantation. The use of marginal donors is therefore a potential strategy to increase donor recruitment and indeed the use of this strategy has been successful in high volume transplant centers [3–5].

We recently encountered a critical clinical situation, in which a marginal donor with significant coronary artery disease was accepted for a recipient who was in cardiogenic shock despite of maximal medical and mechanical support. A 74-year old man presented with ischaemic cardiomyopathy with an ejection fraction of 13%. He had a positron emission tomography (PET) scan, which demonstrated that he had viable hibernating myocardium in a large portion of his anterior wall, suggesting that he would benefit from coronary revascularization. He underwent two-vessel CABG with vein grafting to left anterior descending artery (LAD) and posterior interventricular branch of the right coronary artery and left ventricular aneurysm repair. He required inotropic support and an intra-aortic balloon pump (IABP) to wean from bypass. After extubation, the IABP could not be weaned, however all other organ systems were functioning perfectly. The patient was listed for a cardiac transplant with the condition that we would only accept a heart that had been turned down by every other institution in the national system. Fortunately a heart did become available from a 45 year-old donor that was refused due to moderate

left ventricular dysfunction by echocardiogram and the presence of a lesion in the LAD on the coronary angiogram. Donor procurement was uneventful and after cardiectomy and insertion of the donor heart, during de-airing the previous vein graft was re-anastomosed to the distal LAD. The patient was weaned smoothly from cardiopulmonary bypass and transtoesophageal echocardiography showed that the left ventricular function was normal. The postoperative course was smooth and the patient continues to do well one and half years post transplant with excellent compliance. Follow-up echocardiography has demonstrated that the donor heart has an ejection fraction estimated at 55%. These cases highlight the need for careful reassessment of marginal donors and perhaps suggest that a "second draft choice" list be considered for this cohort by transplant teams.

Conflict of interest: none declared**References**

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