ELSEVIER

The Journal of
Heart and Lung
Transplantation

RESEARCH CORRESPONDENCE

Comment on "Catheter Ablation of Atrial Flutter following Orthotopic Heart Transplantation"

Claudio Hadid, MD, Patricia Avellana, MD, and Darío Di Toro, MD,

From the Hospital General de Agudos Cosme Argerich, Buenos Aires, Argentina.

We read with interest the article by Mouhoub et al[1] describing a series of 30 transplanted patients with organized atrial arrhythmias (93% cavotricuspid isthmus [CTI]-dependent atrial flutter [AFL]) treated with catheter ablation. They reported 93% ablation success with a low recurrence rate and highlighted the usefulness of electronatomic mapping. Moreover, they discouraged use of fluoroscopic navigation in these patients. We reported 4 cases of post-transplant CTI-dependent AFL,[2,3] successfully treated by fluoroscopy-based catheter ablation, and recently had a fifth case of typical AFL, ablated with electronatomic mapping. Overall, the 5 patients (3 males) had biatrial anastomosis. Time from transplant to AFL was 8.8 (3 to 16) years. The authors stated that CTI was shorter in patients with biatrial than bicaval anastomosis. We did not have patients with bicaval anastomosis, but we did find that CTI was definitively shorter than in non-transplanted patients and ablation was even easier because of this issue.[2] During follow-up (30 [4 to 84] months), there was 1 recurrence (ablation scheduled) and no patient developed atrial fibrillation.

Mouhoub et al indicated that 20% patients had electrical repermeation of the anastomosis and concluded that electrical repermeation between the recipient and donor atria increased the risk of arrhythmia relapse. However, they also noted that repermeation was not associated with clinical arrhythmias and did not describe outcomes in this small subgroup of patients. It would have been elucidatory if the authors reported the recurrence rate of patients with repermeation at initial ablation procedure.

In our work, we did not find repermeation in the patients. Four showed a recipient right atrium in sinus rhythm, dissociated from the donor atria in AFL, and in the remaining case the recipient's atrium was in atypical AFL, dissociated from the donor atria in CTI-dependent AFL.

Another noteworthy finding from their article is the high predictive accuracy of the electrocardiogram to predict typical AFL. Accordingly, ECG morphology was suggestive of CTI-dependent AFL (4 counterclockwise and 1 clockwise) in all of our patients.

Finally, we agree with the authors that catheter ablation should be considered first-line therapy in post-transplant patients with AFL. However, in 4 of the 5 patients in our study, successful ablation was performed under fluoroscopic navigation. We believe that the lack of 3-dimensional mapping technology does not prevent these patients from being cured of AFL.

Disclosure statement

The authors have no conflict of interest to disclose.

References

1. Mouhoub Y, Laredo M, Varnous S, et al. Catheter ablation of organized atrial arrhythmias in orthotopic heart transplantation atrial tachycardia ablation after heart transplantation [e-pub ahead of print]. J Heart Lung Transplant. http://dx.doi.org/10.1016/j.healun.2017.07.022, accessed November 6, 2017.
2. Hadid C, Di Toro D, Stewart-Harris A, et al. Atrial flutter following cardiac transplantation successfully treated with catheter ablation. Rev Argentina Cardiol 2009;77:408-10.
3. Avellana P, Hadid C, Ini A, et al. Atrial flutter after cardiac transplantation: electrophysiologic characterization and catheter ablation. J Heart Lung Transplant 2015;34(suppl):S314.

Reprint requests: Claudio Hadid, MD, Hospital General de Agudos Cosme Argerich, Buenos Aires, Cuba 2370, Buenos Aires 1428, Argentina. Telephone: +54 114121 0821. Fax: +54 114300 3742.

E-mail address: claudio.hadid@gmail.com

1053-2498/$ - see front matter
http://dx.doi.org/10.1016/j.healun.2017.10.020