Dissimilar atrial rhythms after heart transplantation

A 50-year-old male with a history of orthotopic cardiac transplant for ischaemic cardiomyopathy performed two years ago was referred for ablation of atrial flutter (AFL). ■

N.M.S. de Groot, Y.L.E. van Belle,
M.C.M. Miltenburg, T. Szili-Torok, L. Jordaens
*Department of Cardiology, Erasmus MC,
Rotterdam, the Netherlands*

*Correspondence to: N.M.S. de Groot
Department of Cardiology,
Erasmus MC, Thoraxcenter, PO Box 2040, 3000
CA Rotterdam, the Netherlands
E-mail: nmsdegroot@yahoo.com*

Figure 1. A) Multipolar catheter (#) positioned around the tricuspid valve (TV) showed a counter-clockwise activation of the right atrium (RA) (cycle length 268 ms) with 2:1 atrioventricular conduction. The ablation catheter (*) positioned at the RA free wall recorded a slower atrial rhythm (cycle length 698 ms). B) Atrial flutter (AFL) terminated during ablation followed by an asystolic episode of 3268 ms after which sinus rhythm (SR) resumed. During asystole, SR in the native RA continued, indicating that there is no atrio-atrial conduction.

Figure 2. Activation maps of native right atrium (N-RA) and donor right atrium (D-RA) showed earliest activation originating from the upper part of lateral free wall and counter-clockwise activation around the tricuspid valve (TV) respectively. As expected, voltages in the N-RA were lower than in the D-RA. AFL=atrium flutter, SR=sinus rhythm.