

Multiple Atrial Flutters as a Sign of Acute Rejection in a Heart Transplant Recipient

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Background: Atrial arrhythmias are common after orthotopic heart transplantation. Atrial flutter (AFL) may occur with normal graft function; however it may also be a sign of rejection. We present a case of multiple AFLs in a heart transplant recipient occurring more than 10 years after transplantation who was found to be having rejection.

Case: An 82 year-old male with a history of nonischemic cardiomyopathy status post orthotopic heart transplant with biatrial anastomoses in 2004 and recent ablation for new-onset typical AFL developed recurrent AFL and was referred for repeat ablation. Entrainment from the proximal and distal coronary sinus catheter poles produced post pacing interval minus tachycardia cycle length (PPI-TCL) differences of 0 ms (Figure 1A) and 4 ms, respectively, suggesting an AFL in the left atrium (LA) with participation of the interatrial septum. Following transseptal access, the native remnant LA was in sinus rhythm whereas the donor LA was in AFL; areas of rhythm transition delineated the anastomotic line. Ablation along the interatrial septum (mitral annulus 9:00 position, Figure 1B) to the anastomotic line terminated the arrhythmia. Programmed atrial stimulation induced another AFL. Entrainment from the LA roof produced a PPI-TCL of 18 ms. Ablation along the LA roof (mitral annulus 12:00 position, Figure 1B) to the anastomotic line terminated the arrhythmia. Endomyocardial biopsy revealed mild acute cellular-mediated rejection (1R).

Conclusion: Late rejection should be considered in a heart transplant recipient with new multiple AFLs of new onset.