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Intra-atrial re-entrant tachycardia around atretic tricuspid annulus

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A 47-year-old woman with tricuspid atresia and extracardiac Fontan palliation who developed symptomatic atrial arrhythmia was referred for catheter ablation. The clinical arrhythmia was easily inducible with a stable tachycardia cycle length of 260 ms. Trans-Gore-Tex tube puncture was performed, and multiple dilatations up to a 6-mm cutting balloon were required to allow the introduction of a steerable sheath (Agilis NxTTM, Abbott) (*Panel A*). Biatrial activation and entrainment mapping using a highdensity mapping catheter (Pentaray, Biosense) revealed a macro intra-atrial re-entrant tachycardia around the atretic tricuspid annulus identified by a small scar area near to the His signal (*Panel B*, propagation map video is



provided in Supplementary material online). We performed a linear ablation between the atretic tricuspid annulus and the scar where the inferior vena cava was oversewn. The arrhythmia slowed then terminated during the second radiofrequency application. The conduction block was confirmed by activation mapping, and no further atrial arrhythmia was inducible. In patients with extra-cardiac conduits, the isthmus between the atrioventricular valve annulus and the owersewn inferior vena cava is often involved. In this case, despite the absence of tricuspid valve due to tricuspid atresia, the arrhythmia circuit rotated around the atretic annulus identified by a small scar area.

Supplementary material is available at *Europace* online.

The full-length version of this report can be viewed at: https://www.escardio.org/Education/E-Learning/Clinical-cases/Electrophysiology.

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