antior PAP, moderator band, and epicardial VT that may carry relatively higher recurrence rate. In contrast, VT catheter ablation in patients with SHD has followed a very different trajectory, and remains in its infancy. Although progress has been made by the improved tools for mapping and ablation, the outcomes of this procedure remain poor with <50% success rates and excess risk of major complications including stroke and death. Because of this, the adoption of this procedure has been slow. Fortunately, a new intensity and focus has been placed on catheter ablation of VT in patients with SHD. New technologies for mapping and ablation are in development and multicenter clinical trials are underway.

We are hopeful that these efforts with bear fruit and that the long-term efficacy of this procedure will soon exceed 70% with a reduction in major complication rates to an acceptable level.

**Conflict of interest:** S.N.: Consultant: Biosense Webster, Medtronic and CardioSolv; Research Grant: Biosense Webster and St. Jude Medical. H.C.: Consultant: Medtronic and St. Jude Medical; Research Grant: Boston Scientific and St. Jude Medical.

**References**

The list of references is available in the online version of this paper.

---

**CARDIOVASCULAR FLASHLIGHT**

**Accessory pathway ablation in childhood forming the substrate for ventricular tachycardia in adulthood**

Julia Koch1*, Christian Lücke2, Roman Gebauer3, Gerhard Hindricks1, and Arash Arya1

1Department of Electrophysiology, Heart Centre, University of Leipzig, Strümpellstr. 39, Leipzig 04289, Germany; 2Department of Radiology, Heart Centre, University of Leipzig, Leipzig, Germany; and 3Department of Pediatric Cardiology, Heart Centre, University of Leipzig, Leipzig, Germany

* Corresponding author. Tel: +49 341865252085, Email: julia.koch@me.com

A 26-year-old patient presented to the emergency department with sustained fast monomorphic ventricular tachycardia (Panel D). At the age of 9, he had undergone radiofrequency catheter ablation (RFCA) of an accessory pathway (AP) due to recurrent atrioventricular reentrant tachycardia. At that time, an electrophysiological study (EPS) located the concealed AP at the inferolateral aspect of the mitral anulus. Radiofrequency catheter ablation was successfully performed but complicated by late pericardial effusion.

Seventeen years later, magnetic resonance imaging (MRI) revealed a hyperintense signal in the left ventricular inferobasal segment in the delayed enhancement image consistent with scarring or intramural fat (Panel A). Steady-state free precession sequences showed a hyperintense signal surrounded by a signal-free borderline consistent with adipose tissue in a myocardial scar (Panels B and C, also see supplementary material online). The EPS voltage mapping demonstrated low-voltage areas endo- and epicardially in the pre-described area (Panel E). The clinical VT could be treated by substrate- and pacemap-guided ablation (Panels E–G) with freedom from VT recurrence at 30 months follow-up.

This case demonstrates that RFCA of accessory pathways in childhood can lead to the generation of substrate for subsequent VT. The extent of transmural myocardial scaring at the site of previous ablation might have been amplified by growth and/or a result of additional thermal injury of a coronary artery branch. Adipose tissue, in the literature often referred to as lipomatous metaplasia, has been described in ischaemic but also dilative cardiomyopathy and it predisposes for re-entrant tachycardia. However, association with AP ablation has not been reported in the literature. Either way, RFCA in childhood should be performed as atraumatic as possible warranting some caution during follow-up.

Supplementary material is available at European Heart Journal online.

Published on behalf of the European Society of Cardiology. All rights reserved. © The Author 2015. For permissions please email: journals.permissions@oup.com.