



* Inadequate DSM resulted from generator output failure
* Inadequate DSM was expected due to change in coil position on x-ray in both cases

ABSTRACT 3651

Zero fluoroscopy ablation of supra-ventricular arrhythmias in adults with congenital heart disease

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Electrophysiology

Background: Radiation elimination for catheter ablation of routine supraventricular arrhythmias (SVA) has become a standard across most institutions. Data on non-fluoroscopic ablation of SVA in Adults with Congenital Heart Disease (ACHD) is limited. Our aim is to share our experience with non-fluoroscopy ablation of SVA in ACHD patients.

Case Description: From February 2019 to February 2023, 8 patients (4 females) with ACHD [Figure] underwent non-fluoroscopy RF ablation of SVA utilizing the CARTO™, 3D electroanatomic mapping system. Median age was 31 years (27–46) years, weight 75 (52–109) Kg. Indications for EPS included palpitations and documented SVA requiring medical management in all but 1 with

CHD Complexity [2018 ACC/AHA guidelines for management of ACHD]	CHD Diagnosis	Arrhythmia Mechanism
Mild	Repaired superior sinus venous ASD	Focal atrial tachycardia from mid lateral right atrium
Moderate	Large unrepaired secundum ASD and PLSVC	Atypical AVNRT
	Repaired Tetralogy of Fallot	Focal atrial tachycardia from posterior septal right atrium
	Repaired Tetralogy of Fallot	- Typical atrial Flutter - Focal atrial tachycardia originating from superior Crista Terminalis
	Repaired partial AV canal defect	Typical atrial flutter
Great	Pulmonary Atresia, Intact Ventricular Septum	Typical atrial flutter
	D-TGA, Atrial switch repair	Focal atrial tachycardia originating from the inferior limb-systemic venous lateral baffle lateral connection
	D-TGA, Arterial switch repair	Typical AVNRT



AV Canal Defect: 3D map demonstrating location of successful Atrial Flutter Ablation. Note His bundle location near the mouth of the coronary sinus

sinus node dysfunction. CHD diagnoses and the ablated arrhythmia mechanisms are included in the table. There were no complications and at a median follow-up of 24 (2–40) months, there was no recurrence.

Conclusion: Zero fluoroscopy RF ablation involving the right or systemic venous atrial substrate was successfully accomplished in a range of ACHD patients with mild, moderate and great complexity. It may be reasonable to consider zero fluoroscopy ablation in ACHD patients as feasible by the anatomy and underlying arrhythmia substrate.

ABSTRACT 3657

Aborted sudden cardiac death in a 12 year old girl - a rare manifestation of a common disease

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Background: This case demonstrates an unusual cause of aborted sudden cardiac death in a previously healthy girl, making investigation and treatment challenging. Wolff-Parkinson-White (WPW) syndrome is a prevalent disease. Although sudden cardiac death is an uncommon presentation, it might happen as the disease’s first manifestation.

Case Description: A 12-year-old girl with no previous comorbidities had a second sudden aborted death event, within a six-year gap. The length of cardiopulmonary resuscitation was extended, and sedation was required due to recurrent convulsions. She was transferred to a Cardiology Center without any neurological consequences where the WPW diagnosis was made. An electrophysiological study was conducted, although the ablation was unsuccessful. The patient underwent cardiac computed tomography and a coronary sinus diverticulum was found, which could be related to the location of the accessory pathway. Afterwards a successful ablation within the diverticulum was performed. Two days after the procedure, the patient was discharged with a normal electrocardiogram.

Conclusion: WPW syndrome sometimes presents challenges in ablation due to cardiac abnormalities. As seen in this case, the difficulty in accessing the accessory pathway where the location is in a coronary sinus diverticulum. Therefore, the importance of careful follow-up and investigation of patients with aborted sudden death of unknown cause is emphasized.

