CONCEALED ACCESORY PATHWAY IN A SENIOR ADULT

Freddy Duarte Lau, M.D.[1], Kristin Stawiarski, M.D.[2], Craig McPherson, M.D.[2]
[1] Department of Internal Medicine, Yale New Haven Health/Bridgeport Hospital.
[2] Department of Cardiology, Yale New Haven Health/Bridgeport Hospital.
Category: Case Vignettes

Background: Although accessory pathways associated with WPW Syndrome develop in utero, they occasionally only manifest late in adult life.
Case: A 60-year old man with CAD, diabetes, and hypertension presented with one-hour of palpitations. An ECG revealed regular tachycardia at 200 bpm with RBBB-morphology QRS complexes (Fig 1A). A recent ECG in NSR showed normal PR-interval and slightly narrower QRS complexes of similar shape (Fig 1B).
Decision making: The tachycardia was diagnosed as SVT with aberrancy. It persisted after IV injection of adenosine and metoprolol, terminating after IV diltiazem. Subsequent ECG demonstrated short PR interval, borderline QRS duration, and delta waves (Fig 1C), findings that had never been seen on any of his previous 23 ECGs dating back 8 years. An EPS confirmed the presence of a right free wall (RFW) accessory pathway (AP) that displayed robust retrograde conduction leading to an easily inducible orthodromic reentrant tachycardia (Fig. 1D). The AP was successfully ablated. The patient was treated with metoprolol and has remained asymptomatic since.
Conclusion: Although an AP develops in utero, some may be “concealed”, providing retrograde conduction during SVT but conducting minimally (and sometimes not at all) anterograde. Concealment of a RFW AP is quite unusual, most occur in the left atrio-ventricular ring. This 60 year-old man presented the highly unusual combination of a well concealed, congenital RFW AP being diagnosed late in adulthood.

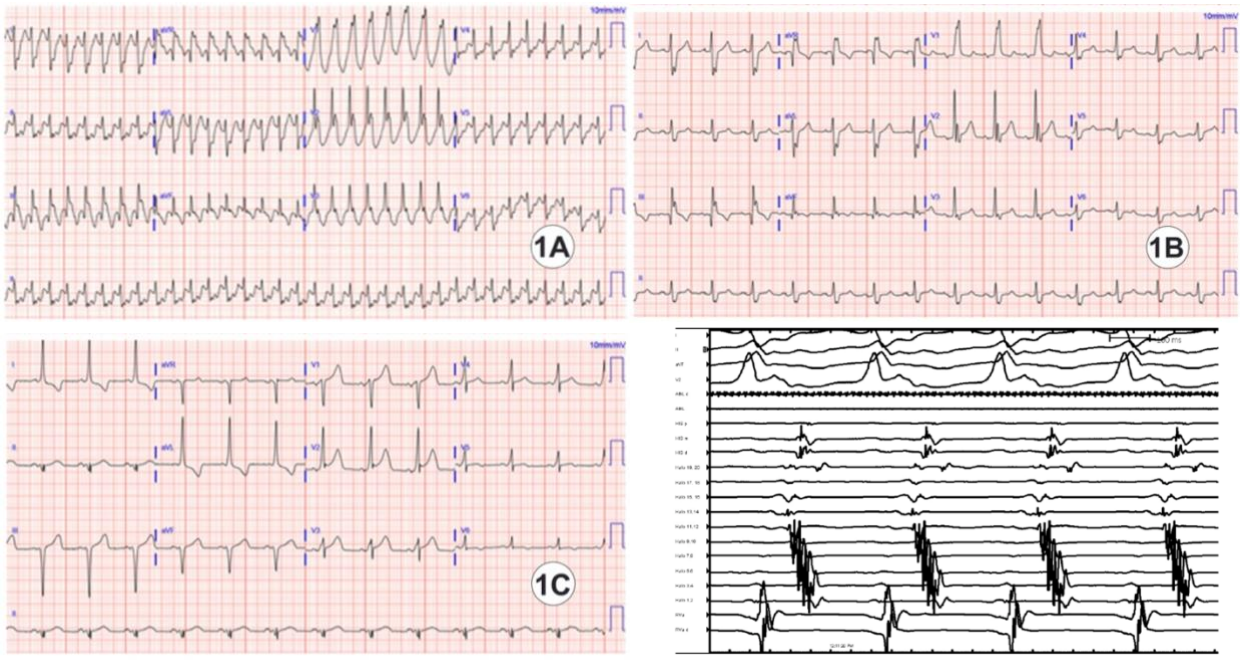

Figure 1. A. Admission ECG with SVT. B. Baseline ECG in NSR. C. ECG after injection of nodal blocking drugs with WPW pattern. D. Intracardiac EP tracing showing orthodromic SVT with earliest retrograde activation in RV free wall (halo 12-14).