Automaticity of MAHAIM Masquarading CPVT

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Introduction: 22 year old woman. 1st pregnancy, 3rd trimester. Recurrent palpitations, giddiness, near-syncope. Examination normal, except for ectopics. Echocardiogram normal. PVCs with varying coupling interval. 24 hr Holter- Multiple unifocal PVCs, ventricular couplets, MMNSVTs Started on propranolol 20 mg BDEctopics persisted. Holter repeated after 1 week- similar as before. Amiodarone added. Delivery by Caesarian section 1 week later. Post-partum period uneventful. Holter 1 month later- similar as before

Methods: Taken up for EP study after stopping drugs for 2 weeks-comment. ’Unifocal’ PVCs with varying coupling intervals; no common basic interval, hence not a parasystole. The PVCs have LBBB morphology, +ve in L1 ,more +ve in L II than III . Atrial pacing…interpret. The LBBB induced by RA pacing is identical to the PVCs. Likely to be spontaneous automaticity of a Mahaim-like accessory pathway. Any further insight? RA pacing, with LBBB pattern of ventricular conduction with small r in V1 1 ‘PVC’, the APERP is reached. Decapolar catheter placed across the His-RB region. RA pacing. Reversal of His-RB activation with preexcitation, 1 ‘PVC’ which has an identical QRS. No ‘M’ potential found along the tricuspid annulus. The RV was mapped. The best early activation obtained…

Result: RF energy- AP eliminated, RBBB seen.

Conclusion: Right free wall atriofascicular Mahaim pathway inserting into RBB Frequent automaticity from ventricular insertion site producing symptomatic ‘VT’Successful RF ablation with resultant RBBB