

Atrial fibrillation related to concealed WPW. A new possible mechanism for paroxysmal atrial fibrillation independent of pulmonary vein foci*Rosenheck, S; Weiss, A; Banker, J; Sharon, Z**Hadassah Hebrew University Medical Center, Jerusalem, Israel*

Background. Atrial Fibrillation is a frequent arrhythmia in patients with overt WPW. The frequency and presentation of this arrhythmia in patients with concealed WPW have not been well evaluated. The purpose of this study is to present unusual presentation of atrial fibrillation in patients with concealed WPW.

Methods and Results. From among the last 100 patients with concealed WPW referred for RF ablation two patients had incessant atrial fibrillation immediately with insertion of an EP catheter in the right atrium and relived only with the removal of this right atrial electrode. The electrode was advanced into the right ventricular apex and an ablation electrode catheter was inserted into the left ventricle using the retrograde aortic method. No additional catheters were used. The accessory pathway location was determined with ventricular pacing and approached in the true mitral ring (Fig). After the successful RF application, ventricular pacing demonstrated complete VA block and electrode catheters were inserted into the right atrium. No tachycardia or atrial fibrillation was induced with aggressive atrial pacing.

In a third patient, the only clinical arrhythmia was atrial fibrillation and was referred for atrial fibrillation ablation. With insertion of the first electrode catheter into the right atrium the catheter induced atrial premature beats induced regular supraventricular tachycardia with long VA time and after ablation of a left postero-lateral concealed accessory pathway no tachycardia or atrial fibrillation could anymore induced.

Conclusions: These three patients demonstrated a direct correlation of a concealed accessory pathway with incessant atrial fibrillation with any atrial stimuli. The easily inducible atrial fibrillation was eliminated with successful ablation of the concealed accessory pathway. We suggest an additional possible mechanism for paroxysmal atrial fibrillation in young patients not related to pulmonary vein foci

