

A case of late-onset Wolff-Parkinson-White syndrome complicated by troponin elevation

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BACKGROUND

- Wolff-Parkinson-White (WPW) syndrome is a congenital pre-excitation syndrome characterized by aberrant conduction through an accessory pathway leading to tachyarrhythmias
- The peak age of occurrence of WPW is 20 - 24 years of age and it is uncommon in older adults
- We present a case of WPW syndrome diagnosed at the age of 48 and complicated by troponin elevation

CASE DESCRIPTION

A 48-year-old man presented with chest pain, palpitations, and syncope

- ECG showed a narrow complex tachycardia with a rate of 250 (Figure 1), that converted to sinus rhythm with Vagal maneuvers
- Repeat ECG with delta wave, short PR interval, and T-wave inversions in leads V2-V5 (Figure 2)

- Initial Troponin I was negative, later peaking at 9.41
- TTE showed preserved LV function and no wall motion abnormalities

- He was started on treatment for presumed ACS
- Underwent a coronary angiogram with no evidence of obstructive coronary disease

Subsequently, he had ablation of a left posterior accessory pathway with resolution of ECG changes (Figure 3)

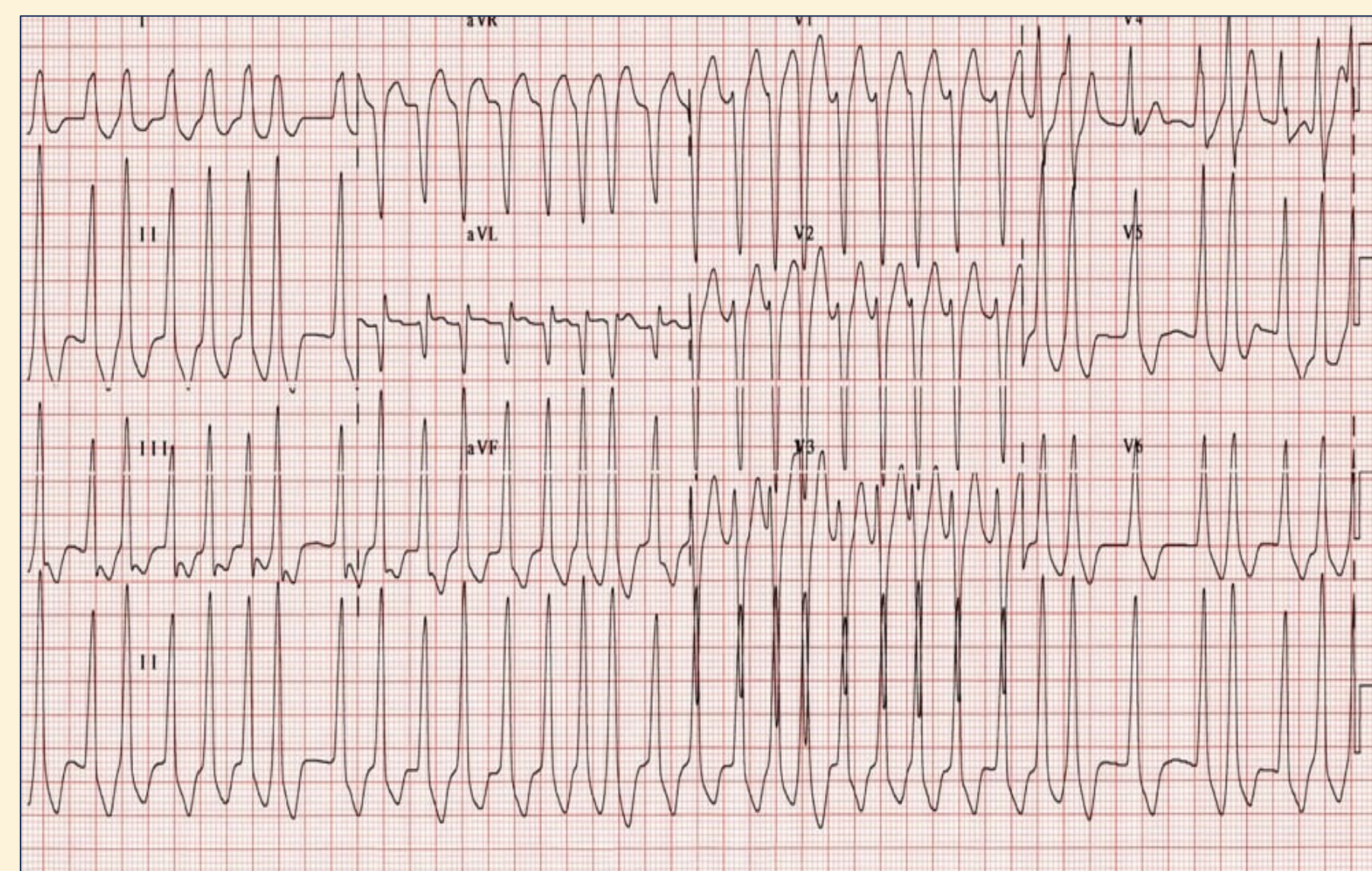


Figure 1. Tachycardia in WPW syndrome

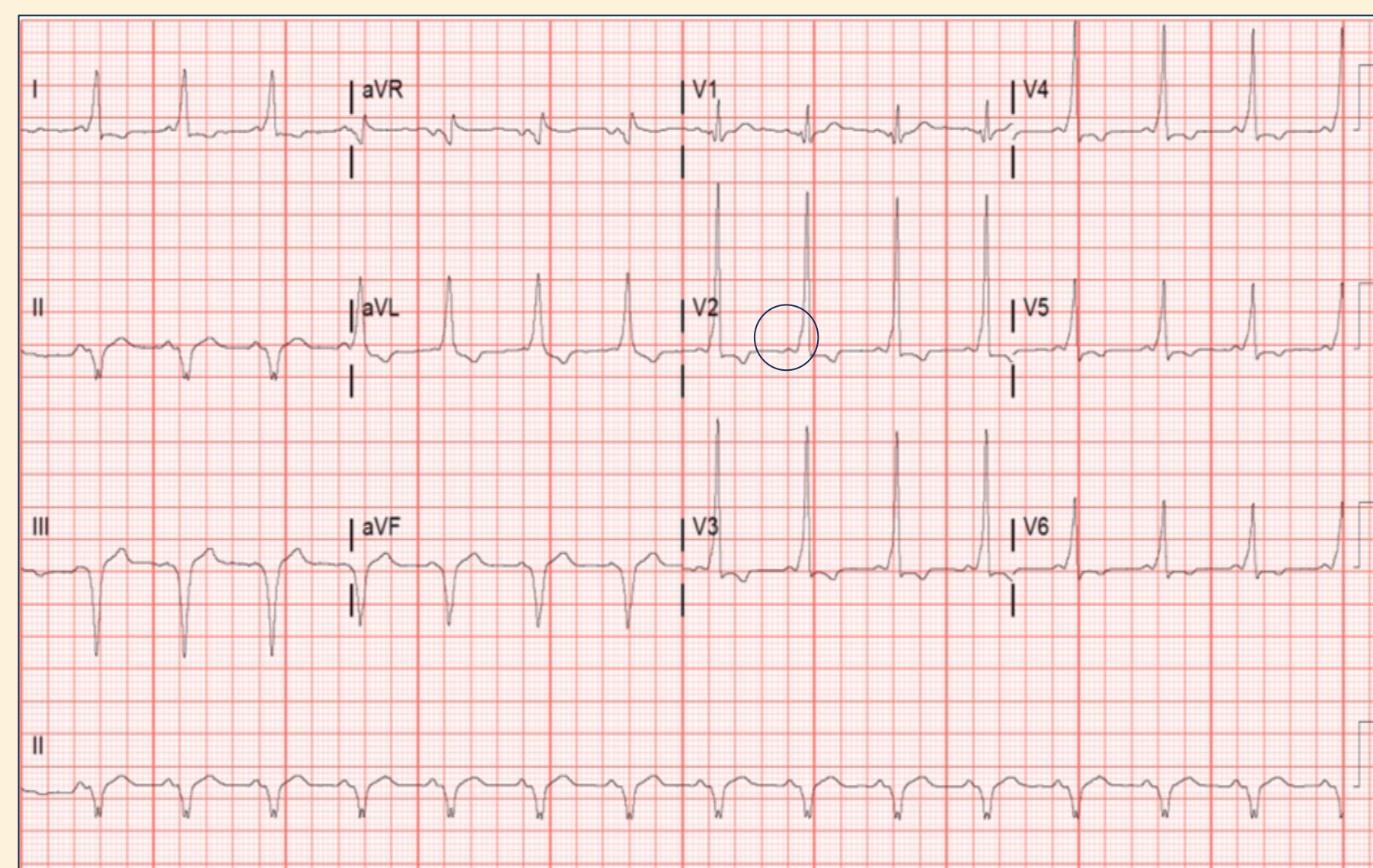


Figure 2. ECG with delta wave after resolution of tachycardia

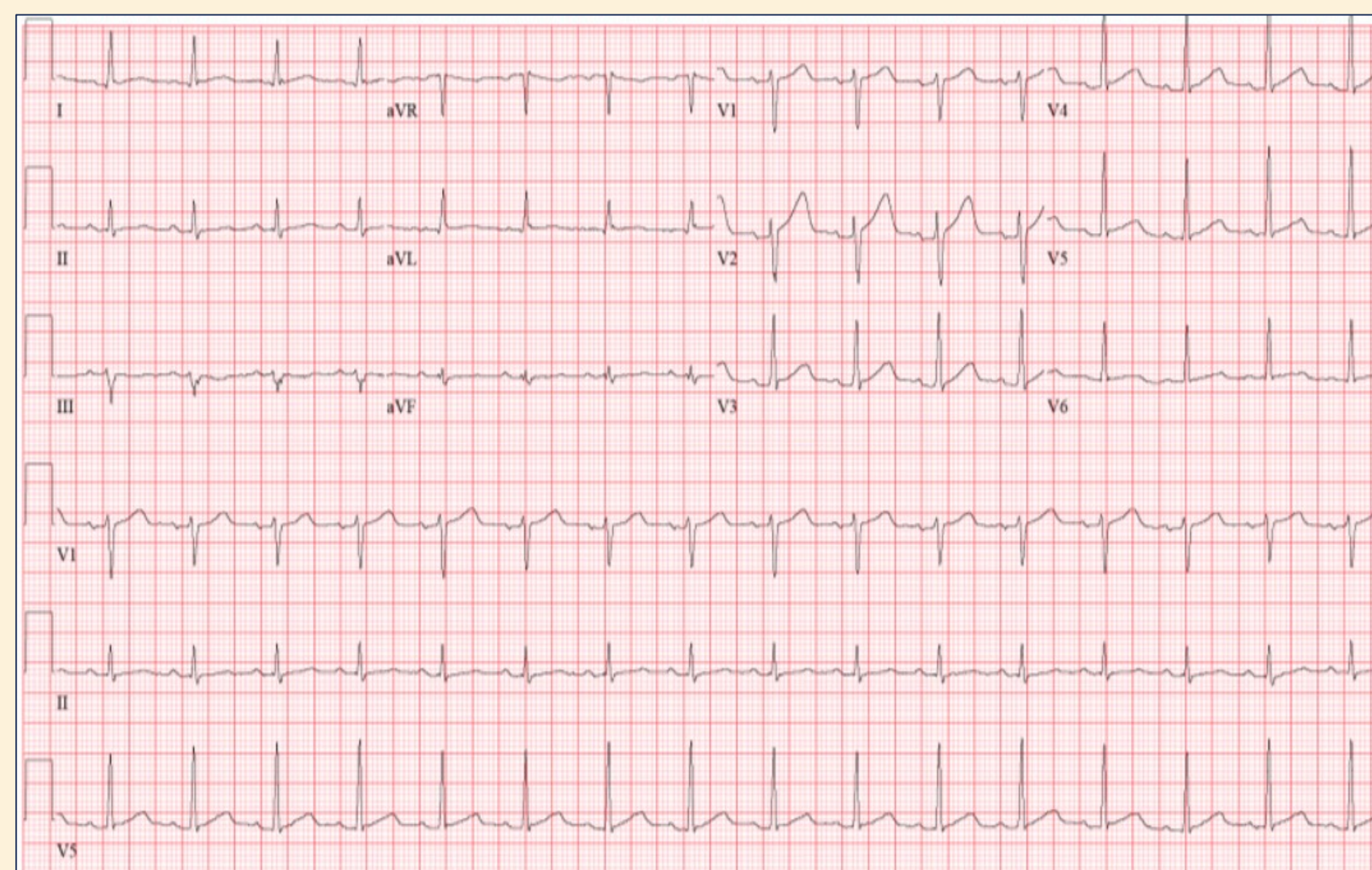


Figure 3. ECG after Accessory pathway ablation

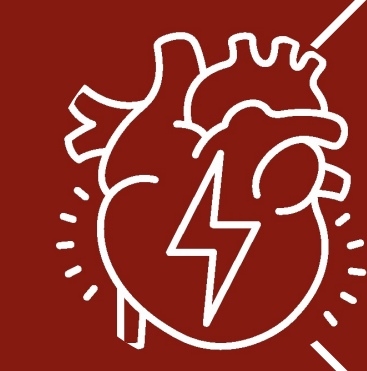
DISCUSSION



The Accessory pathway causing premature ventricular depolarization is formed during embryonic development, and typically manifests early in life



- WPW syndrome is reported to have a prevalence of 0.36/1000 under the age of 50
- Peak prevalence is in the 20 – 24-year age group per multiple studies



ACS occurring in conjunction with WPW leads to confounding ECG findings without typical ischemic changes



In adults with supraventricular tachycardia, timely identification and treatment of WPW with ablation is key to a favorable outcome

CONCLUSION

WPW remains a rare disease of young adults, however, it can have a delayed presentation and be associated with acute coronary syndromes resulting in fatal complications

DISCLOSURE INFORMATION

Author* Disclosure: None