

Late onset of Wolff-Parkinson-White syndrome in a 48 year old post-menopausal woman

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Introduction: First described in 1930, Wolff-Parkinson-White syndrome, or WPW syndrome, is an abnormal extra electrical pathway (known as the bundle of Kent) in the heart that can lead to tachycardia, palpitations and rarely sudden cardiac death. The extra electrical pathway of Wolff-Parkinson-White syndrome is present at birth and is a congenital heart abnormality occurring in about 1 per 1,000 in the general population. Young men have a higher incidence of WPW than women. Episodes of tachycardia often first occur when they are in their teens or early 20s. Conservative treatment usually involves amiodarone or procainamide to rate control the rhythm. The definitive treatment of WPW is a destruction of the abnormal electrical pathway by radiofrequency catheter ablation with success rates of as high as 95%. If radiofrequency catheter ablation is successfully performed, the condition is generally considered cured. Recurrence rates are typically less than 5% after a successful ablation.

Case description: A 48 year old post-menopausal woman with intermittent palpitations and syncope over approximately one month which were affecting her daily activities presented to our family practice center complaining of worsening palpitations and new onset tachycardia. An electrocardiogram revealed a positive delta wave. Unique features were late onset diagnosis at age of 48 year old post-menopausal female without any previous documentation of Wolff-Parkinson-White syndrome on an electrocardiogram. WPW is usually diagnosed in men in their early 20's. Further testing included a thyroid panel, CBC and basic metabolic panel of which was within normal limits. Additional cardiac workup included a 24hr Holter monitor; exercise electrocardiogram treadmill test and transthoracic echocardiography which helped confirm the initial diagnosis. The patient had catheter ablation approximately two months after the first symptoms appeared. The procedure involved a Thermocool[®] catheter and 3D electroanatomic mapping using the Ensite[®] system was performed to delineate the arrhythmia circuit system which led to a successful ablation of the accessory pathway. The mechanism of late onset of the diagnosed was attributed to possible changes of electrophysiologic properties including the unique location of the accessory pathway in the right atrium/atrio-ventricular node and the dual accessory pathway.

Discussion: This case involves a very rare condition with an atypical late onset. WPW is normally diagnosed in men at a young age. The unique and rare features of this case were the recent onset of palpitations, syncope and tachycardia, evolving at a fairly advanced age of 48 years old, without any previous documentation of WPW syndrome in an ECG. The patient also had a full recovery and had no further symptoms of palpitations, syncope and tachycardia since undergoing the catheter ablation surgery.

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