Wolff-Parkinson-White Syndrome. Presentation of a Patient

Dr. Glicerio Ceballos Puentes*
Assistant Physician, Department of Clinical Area, Pediatric Cardiology, Sacred Hope Clinic, Talatona (Luanda, Angola). ENDIAMA Group, Angola

*Corresponding Author: Dr. Glicerio Ceballos Puentes, Assistant Physician, Department of Clinical Area, Pediatric Cardiology, Sacred Hope Clinic, Talatona (Luanda, Angola). ENDIAMA Group, Angola.

Received: March 05, 2020; Published: July 15, 2020

Wolff-Parkinson-White syndrome (WPW) is a preexcitation syndrome of the ventricles of the heart due to an accessory pathway known as the Kent beam that runs through the anterolateral part of the atrium and right ventricle (if it is the left is known as Ohnell beam). This route is an abnormal electrical communication from the atrium to the ventricle.

The prevalence of WPW syndrome ranges between 0.1% and 0.3% of the general population.

Although the vast majority of individuals with WPW syndrome remain asymptomatic throughout their lives, there is a risk of sudden death associated with the syndrome. It is rare (incidence less than 0.6%) [1,2] and is due to the tachyarrhythmias that this accessory pathway produces in the individual.

It is estimated that there are currently more than 30,000 children with an asymptomatic Wolff-Parkinson-White (WPW) pattern in the US. UU [1,3,4]. Many are identified by general pediatricians in the course of routine studies for unrelated diseases, or by routine detection for activities such as competitive sports.

However, asymptomatic WPW has a small but significant risk of sudden cardiac death (MSC), which is usually due to rapid antero-grade conduction of atrial fibrillation (AF) through the accessory pathway leading to ventricular fibrillation [5].

Multiple studies suggested non-invasive and invasive risk stratification techniques to help determine the likelihood of a lethal accessory pathway [6-8] and most patients with asymptomatic WPW will undergo an initial risk assessment by ambulatory electrocardiogram monitoring (ECG) or an exercise stress test.

In 2003, the authors conducted a survey of the pediatric electrophysiology community [9] finding that the majority relied on invasive risk stratification, conducting electrophysiology studies and then using those indices derived from the electrophysiology study to guide risk stratification for ablation. At that time, reviews and editorials suggested a conservative approach when they risked stratifying asymptomatic children who had WPW in ECG [10,11].

Specific guidelines for the treatment of asymptomatic WPW in children were published in 2012 [5]. These guidelines, endorsed by the Pediatric and Congenital Electrophysiology Society (PACES) and the Heart Rhythm Society (HRS), proposed a risk stratification Non-invasive (in the form of ambulatory ECG or exercise stress test) and a possible electrophysiology study in children older than 5-8 years with asymptomatic WPW.

Citation: Dr. Glicerio Ceballos Puentes. “Wolff-Parkinson-White Syndrome. Presentation of a Patient”. EC Paediatrics SI.03 (2020): 16-22.
The pediatric arrhythmia guidelines of the European Association of Heart Rate 2013 and the pediatric ablation guidelines 2016 PAC-ES/HRS issued a broadly similar guide on ablation for children with asymptomatic WPW [12,13].

Pappone and collaborators investigated asymptomatic young adults (mean age of 36 years) and children and found a notable difference in the rates of life-threatening events; 19 of 184 children vs 1 of 293 adults [14].

At the same time, there is growing evidence that non-invasive and invasive risk stratification methods may not be as sensitive or reliable as previously thought [15,16].

Mah and colleagues found no difference in the incidence of high-risk invasive markers in patients with intermittent preexcitation compared to those with permanent preexcitation. Etheridge found in a multicenter study that patients with life threatening events may not have high-risk markers in invasive electrophysiology studies [15].

**Presentation of a patient**

The 11-year-old male and black AGF patient has a history of palpitations and a feeling of shortness of breath that appears spontaneously without apparent activity.

It was evaluated in another country where the diagnosis of WPW by ECG was confirmed, and also echocardiogram and negative respiratory functional tests. No treatment was indicated. The parents in search of a second opinion came to me Consultation and after performing ECG (Figure 1) and Holter (Figure 2-8) with persistence of the aforementioned symptoms I decide to send to a Center for ablation of the abnormal fascicle due to death risk sudden In these moments in preparation for the trip.
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