Atrial fibrillation in a patient with Wolff-Parkinson-White syndrome

ENRIQUE ALONSO FORMENTO, FERNANDO RODERO ÁLVAREZ, CARMEN ROS TRISTÁN, ANTONIO MARTÍNEZ OVIEDO, BLANCA MAR ENVID LÁZARO, FRANCISCO JOSÉ ESTEBAN FUENTES

Emergency Department, Obispo Polanco Hospital, Teruel, Spain.

In pre-excitation syndromes there is greater predisposition to the appearance of auricular arrhythmia than in the general population. Auricular fibrillation (AF) is the second most frequent arrhythmia after re-entry auriculoventricular orthodromic tachycardia in the Wolff-Parkinson-White syndrome. In the presence of anterograde accessory vias, AF may produce high ventricular frequencies with the risk of ventricular fibrillation.

We present the case of a 59-year-old male diagnosed with the Wolff-Parkinson-White syndrome with no clinical manifestations until the day of admission.

The patient arrived to the Emergency Department because of having awoken with oppressive retrosternal pain and palpitations. Physical examination demonstrated signs of peripheral hypoperfusion and the initial electrocardiogram (ECG) showed arrhythmic tachycardia of wide QRS suggestive of AF (Figure 1). Synchronised cardioversion was performed with 200 jules of monophase energy and achieved sinusal rhythm (Figure 2).

In the Wolff-Parkinson-White syndrome AF is shown as irregular tachycardia with a wide QRS. This tachycardia is differentiated from ordinary AF with a wide QRS by aberrant conduction in which the first 40 msec of the QRS complex (delta wave) in all the ECG images are equal to the sinusal rhythm with pre-excitation.

The drug of choice is procainamide, although propaphenone, flecainide and disopyramide are also useful.

In the case of haemodynamic compromise or ventricular frequencies greater than 150 beats per minute, synchronised electric cardioversion should be performed without delay.

In cases without haemodynamic compromise the use of amiodarone at a dose of 150 mg iv, administered over 10 minutes is also indicated.

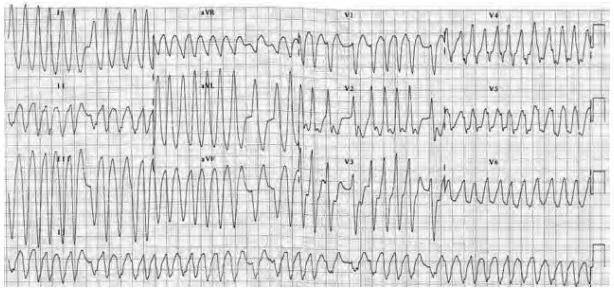

Figure 1. Initial electrocardiogram

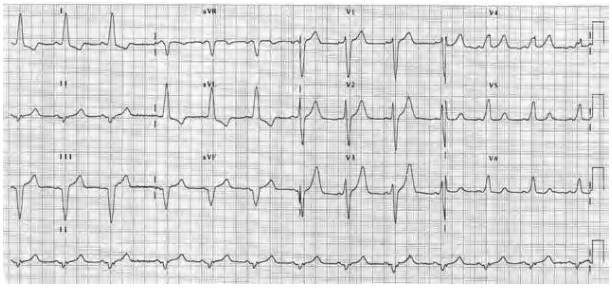

Figure 2. Electrocardiogram following electric cardioversion

CORRESPONDENCE:
Enrique Alonso Formento. Plaza Playa de Aro, nº 1, piso 10, puerta 3. 44002 Teruel, Spain. E-mail: ealonsof@salud.aragon.es

RECEIVED: 1-6-2007

ACCEPTED: 22-1-2008