Wolff Parkinson white Syndrome in Tangier: Prevalence, Clinical Characteristics and Outcome

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Aim:

Wolff Parkinson White Syndrome (WPW) is considered to be a congenital abnormality that involves the presence of abnormal electrical conductive circuits between the atria and ventricles. The occurrence of supraventricular tachycardia transmitted by the accessory pathway and degeneration in ventricular fibrillation remains the main complication. The objective of our study was to specify the prevalence, clinical and electrical features, as well as the prognosis of patients who had been diagnosed.

Method:

- This is a 6-month prospective study on a sample of 1078 patients from the population infected with SARS COV 2, where an electrocardiogram was systematically performed as part of the pre-therapeutic assessment of the infection.

Results:

- 3 patients had pre-excitation on the ECG (0.3%), 2 men and one woman.

- First patient is a 67-year-old man with no history other than active smoking, his electrocardiogram showed a pre-excitation on an anteroseptal accessory pathway (figure 1), his transthoracic ultrasound were compatible with Esbstein's disease, after 1 month the patient was hospitalized in emergency department for impaired consciousness with hemodynamic instability, his ECG showed preexcited atrial fibrillation requiring electrical cardioversion (Figure 2), the patient refused ablation and lost to follow-up.

- The second is a 36-year-old woman, with a history of recurrent palpitations, her electrocardiogram (figure 3) showed pre-excitation on an posteroseptal accessory pathway, after stratification of the rhythmic risk and patient agreement, radiofrequency ablation was performed (figures 4, 5 and 6), on the 1 month follow-up the patient described clinical improvement.

- Finally, a 42-year-old patient, without any history, whose electrocardiogram shows pre-excitation on an anteroseptal accessory pathway (figure 7), the pre-excitation disappears in a stress test at a heart rate of 120 beats per minute (for a RR space of 500 ms) the Staff's decision was surveillance.

Conclusion:

- Wolff Parkinson white syndrome is a rare condition, the incidence in our study is slightly higher than that described in the literature [1].

- Palpitations are the main symptoms, the occurrence of early atrial fibrillation, heart failure and the risk of sudden death imply a fine rhythmic stratification of all patients.

- Catheter ablation and the only curative option.
Figure 1: Pre-excitation on an anteroseptal accessory pathway.

Figure 2: Pre-existed atrial fibrillation.

Figure 3: Pre-excitation on an posteroseptal accessory pathway.

Figure 4: Mode of onset and end of orthodromic tachycardia of the patient.

Figure 5: On electrophysiological study, stimulation on the right ventricle proves posteroseptal localization.

Figure 6: Electrocardiogram after radiofrequency ablation.

Figure 7: Pre-excitation on an anteroseptal accessory pathway.