

Frequency of Syncope in Patients with Accessory Atrioventricular Connection

A Aslani¹, S Kazemi Asl², M Moradi², M Kafi², J Kheirkhah²

¹Cardiovascular Research Center, Shiraz University of Medical Sciences, Shiraz, ²Department of Pacemaker and Electrophysiology, Rajaei Cardiovascular Medical and Research Center, Iran University of Medical Sciences, Tehran, Iran

Background: Syncope in patients with Wolff-Parkinson-White (WPW) syndrome is related to rapid reciprocating tachycardia or rapid ventricular response over the accessory pathway during atrial fibrillation (AF). The aim of this retrospective study is to evaluate the frequency of syncope in patients with WPW syndrome.

Methods: We reviewed the records of 150 consecutive patients with WPW syndrome.

Results: There were 20 patients (13.3%) who reported at least one episode of syncope and 130 patients (86.7%) without such a history.

Conclusion: Syncope is relatively frequent in patients with WPW. Patient with WPW syndrome who has experienced this symptom should be thoroughly evaluated.

Keywords: Syncope; Wolff-Parkinson-White Syndrome

Introduction

Syncope in patients with Wolff-Parkinson-White (WPW) syndrome is related to rapid reciprocating tachycardia or rapid ventricular response over the accessory pathway during atrial fibrillation (AF).¹⁻⁷ However, syncope may be an event without correlation with WPW syndrome.³ The aim of this retrospective study was to evaluate the frequency of syncope in patients with WPW syndrome.

Patients and Methods

Study Population

We reviewed the records of 150 consecutive patients with WPW who were referred for electrophysiological study and radiofrequency ablation. Of them, there were 20 patients (13.3%) who reported at least one episode of syncope defined as a sudden loss of consciousness and 130 patients (86.7%) without a history of syncope. Medical history, physical examination, 12-lead electrocardiogram (ECG)

and 24-hour ambulatory ECG recording were performed in all patients. Neurologic assessment was obtained in majority of patients experiencing syncope. If there were neurologic findings suggestive of syncope or pre-syncope, neurology consult was done and at least one neurologic test (electroencephalography, computed tomography, magnetic resonance imaging or Doppler cranial ultrasound) was carried out.

Electrophysiology Study

Electrophysiological tests were done under local anesthesia in fasting state. All antiarrhythmic drugs were discontinued at least 5 half-lives before the study. Three 6F quadripolar electrode catheters were introduced percutaneously into the femoral veins and positioned at the high right atrium, His-bundle region and right ventricular apex. A 7F steerable decapolar catheter was placed in the coronary sinus from the right femoral vein or subclavian vein. Concomitant recording of leads I, II, III, and V1 were used in addition to the intracardiac recordings,

Correspondence:

A Aslani

Cardiovascular Research Center, Faghihi Hospital, Zand Street, Shiraz, Iran.

Tel/Fax: +98-711-2343529

E-mail: draslani@yahoo.com

Statistic Analysis

Data were analyzed with SPSS14 using conventional methods for mean and SDs and nonparametric tests to evaluate group differences. A P value of less than 0.05 was considered significant.

Results

Hundred and fifty consecutive patients with WPW syndrome (95 male; age: 35.1 ± 14.6 years) were enrolled in the study. Syncope was defined as a temporary sudden loss of consciousness that could not be attributed to neurologic causes. There were 20 patients (13.3%) who reported at least one episode of syncope and 130 patients (86.7%) without such a history.

The most common spontaneous arrhythmia was orthodromic atrioventricular reciprocating tachycardia found in 16 patients with syncope and 76 patients without. Antidromic atrioventricular re-

ciprocating tachycardia and AF were found in 8 and 9 patients without syncope respectively.

Discussion

Previous data suggested that occurrence of AF with a rapid ventricular response or rapid reciprocating tachycardia during electrophysiologic testing correlated well with a history of syncope and may be the cause of syncope in such patients.^{1,3,8,9} The authors suggest that syncope might be a marker of high risk patient subgroup and history of syncope in WPW patients necessitates electrophysiologic testing.^{1,3}

Syncope is relatively frequent in patients with WPW. Patient with WPW syndrome who has experienced this symptom should be thoroughly evaluated.

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