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POSTER

Study value of 12-lead ECG for the left free wall of accessory pathways diagnosing in patients with typical Wolff-Parkinson-White Syndrome

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Abstract

Objectives: This study was designed characteristics of 12-lead Electrocardiogram (ECG) for the left free wall lateral of accessory pathway (AP) localization in the typical WPW syndrome to develop a new algorithm ECG for localizing APs, and to test the accuracy of the algorithm prospectively.

Methods: We studied 129 patients, in 84 patients with typical WPW syndrome have a single anterograde with the localization of APs identified by successful radiofrequency catheter ablation (RCFA) to develop a new ECG algorithm for the left free wall of localizing APs. Then this algorithm was tested prospectively in 45 patients were compared with the location of AP's successful ablation by RCFA.

Results: We found that the 12 lead ECG parameters in typical WPW syndrome such as delta wave polarity in V1, R/S ratio in V1, the transition of the QRS complex, delta wave polarity in inferior leads in diagnosis for the localization of APs by with high accuracy predicted from 74,5% to 100%, and for development of a new ECG algorithm. Then the following 45 patients were prospectively evaluated by the new derived algorithm for the left free wall pathways with high sensitivity and specificity from 75% to 100%.

Conclusion: 12-lead ECG parameters in typical WPW syndrome closely related to left free wall of APs localization, in order to develop the new ECG algorithm by parameters as above; and can be used to a new ECG algorithm in predicting the location APs with high accuracy.

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