

عنوان مقاله:

P-wave dispersion and its relationship to aortic stiffness in patients with acute myocardial infarction after cardiac rehabilitation

محل انتشار:

مجله آریا آترواسکلروز, دوره 10, شماره 4 (سال: 1393)

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نویسندگان:

Rezzan Deniz Acar - *Department of Cardiology, Kartal Kosuyolu Education and Research Hospital, Istanbul, Turkey*

Mustafa Bulut - *Department of Cardiology, Kartal Kosuyolu Education and Research Hospital, Istanbul, Turkey*

Sunay Ergün - *Department of Physical Therapy and Rehabilitation, Kartal Kosuyolu Education and Research Hospital, Istanbul, Turkey*

Mahmut Yesin - *Department of Cardiology, Kartal Kosuyolu Education and Research Hospital, Istanbul, Turkey*

Bilal Boztosun - *Department of Cardiology, Kartal Kosuyolu Education and Research Hospital, Istanbul, Turkey*

Mustafa Akçakoyun - *Department of Cardiology, Kartal Kosuyolu Education and Research Hospital, Istanbul, Turkey*

خلاصه مقاله:

BACKGROUND: The aim of our study was to investigate the P-wave dispersion from standard electrocardiograms (ECGs) in patients with acute myocardial infarction (AMI) after cardiac rehabilitation (CR) and determine its relation to arterial stiffness. **METHODS:** This is a prospective study included ۳۳ patients with AMI and successfully revascularized by percutaneous coronary intervention (PCI) underwent CR. Left ventricular ejection fraction (LVEF) was measured by biplane Simpson's method. Left atrium (LA) volume was calculated. The maximum and minimum durations of P-waves (Pmax and Pmin, respectively) were detected, and the difference between Pmax and Pmin was defined as P-wave dispersion ($Pd = Pmax - Pmin$). Aortic elasticity parameters were measured. **RESULTS:** LVEF was better after CR. The systolic and diastolic blood pressures decreased after CR, these differences were statistically significant. With exercise training, LA volume decreased significantly. Pmax and Pd values were significantly shorter after the CR program. The maximum and minimum P-waves and P-wave dispersion after CR were 97 ± 6 ms, 53 ± 5 ms, and 44 ± 5 ms, respectively. Aortic strain and distensibility increased and aortic stiffness index was decreased significantly. Aortic stiffness index was 0.4 ± 0.2 versus 0.3 ± 0.2 , $P = 0.001$. Aortic stiffness and left atrial volume showed a moderate positive correlation with P-wave dispersion ($r = 0.52$, $P = 0.005$; $r = 0.64$, $P = 0.000$, respectively). **CONCLUSION:** This study showed decreased arterial stiffness indexes in AMI patient's participated CR, with a significant relationship between the electromechanical properties of the LA that may raise a question of the preventive effect of CR from atrial fibrillation and stroke in patients with acute myocardial infarction. **Keywords:** Cardiac Rehabilitation, P-Wave Dispersion, Aortic Stiffness, Acute Myocardial Infarction

کلمات کلیدی:

