

The effect of remote ischemic peri-conditioning on electrocardiographic ST resolution in STEMI patients treated with thrombolytic

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Abstract

Introduction:

STEMI is one of the leading causes of mortality and morbidity worldwide. Infarct size is the main determinant of prognosis. Successful and in-time reperfusion by PPCI is effective in reducing infarct size, preservation of ventricular function and improvement of clinical outcomes in patients with MI.

The use of the remote peri-conditioning and targeting mitochondrial pathways had proven success in reducing infarct size in patients with MI.

The aim of this study was to evaluate the effect of remote ischemic pre-conditioning in ST-segment resolution in patients with STEMI who treated with thrombolytics.

Material & Method:

In a clinical trial conducted by the Cardiology Department of Tabriz University of Medical Sciences, the impact of remote ischemic preconditioning on ST segment

resolution in patients with STEMI who treated with thrombolytics have been evaluated.

All datas were collected and analyzed by the software and were analyzed IBM® SPSS® release 16.0.0.

Results:

78 patients were recruited . 63 of the patients were male (80.8%) and 15 were female (19.2%). The average age of case group were 61 ± 9.67 and control group were 58.72 ± 11.98 years.

41 of patients were in case group and 37 were in control. 73 patients had Anterior MI and 5 patients had Inferior MI.

The ST resolution $>50\%$ after 90 minutes in case group was significantly higher than control group ($P=0.010$).

The average duration of hospitalization was 7.12 ± 5.47 days in the case group and 6.43 ± 5.31 in the control group ($P=0.58$).

Conclusion: Our result showed that remote ischemic pre-conditioning increase ST resolution rate but did not have any effect on mortality rate and hospitalization time.

Keywords: RIP, STEMI, Mortality