ADMINISTRATION OF ERYTHROPOIETIN IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION: GOOD OR NOT?

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Objectives To assess the effects of intravenous erythropoietin (EPO) administration in patients with acute myocardial infarction (AMI).

Methods We searched MEDLINE, EMBASE, and the Cochrane database through June 2011. Eligible studies were randomised controlled trials of intravenous EPO administration in AMI patients with follow-up duration equal to or longer than 1 month.

Results A total of 10 trials involving 1270 participants were identified. Over a weighted mean (SD) follow-up of 3.27 (0.25) months, standard medical care together with EPO significantly reduced infarct size (SMD −0.35, 95% CI −0.68 to −0.02; p=0.04) and left ventricular end-systolic volume (LVESV) (SMD −0.59, 95% CI −1.04 to −0.14; p=0.009) while improved left ventricular ejection fraction (LVEF) (SMD 1.47, 95% CI: 0.51 to 2.42; p=0.003). And EPO administration did not add death, reinfarction, stroke and thrombosis events. Meta-regression showed a statistically significant association between infarct size decrement and age and follow-up duration (both p<0.001).

Conclusions EPO administration in acute MI patients was safe and effective.