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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 (IVESV) (SMD $-0.59,\,95\%$ CI -1.04 to $-0.14;\,p=0.009)$ while improved left ventricular ejection fraction (IVEF) (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).

 $\pmb{\mathsf{Conclusions}}\ \ \mathsf{EPO}\ \mathsf{administration}\ \mathsf{in}\ \mathsf{acute}\ \mathsf{MI}\ \mathsf{patients}\ \mathsf{was}\ \mathsf{safe}\ \mathsf{and}\ \mathsf{effective}.$