

Effect of Nicorandil on Clinical Outcomes in Patients with STEMI or NSTEMI: Based on the Korea Acute Myocardial Infarction Registry.

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[Purpose] Nicorandil has cardiac protective effects related to ischemic preconditioning, vasospasm prevention, myocardial inflammation reduction, myocardial necrosis reduction, and coronary artery perfusion improvement in the ischemic myocardium. However, there are rare large studies whether or not nicorandil is effective in patients with STEMI and NSTEMI.

[Methods] 6370 patients with STEMI in Korean Acute Myocardial Infarction Registry (KAMIR) were divided to two groups: a group with nicorandil (STEMI-N group, n=1,313) and a group without nicorandil (STEMI-C group, n= 5,057). 4184 patients with NSTEMI in KAMIR were divided to two groups: a group with nicorandil (NSTEMI-N group, n=874) and a group without nicorandil (NSTEMI-C group, n= 3,306). We analyzed for death and myocardial infarction and composite of major adverse cardiac events (MACE) at 1, 6 month.

[Results] In the STEMI patients, STEMI-N group had significantly lower incidence of MACE and MI than STEMI-C group on 1 month (Composite MACE: 2.2% vs. 4.1%, p=0.001, Cardiac death: 1.1% vs. 1.8%, p=0.068, MI: 0.1% vs. 0.5%, p=0.019). On 6 month, STEMI-N group had also significantly lower incidence of MACEs and MI than STEMI-C group (Composite MACE: 8.1% vs. 10.1%, p=0.047, Cardiac death: 1.7% vs. 2.7%, p=0.054, MI: 0.1% vs. 0.9% p=0.002). Patients with NSTEMI did not show differences of clinical outcomes at 1, 6 months between NSTEMI-N group and NSTEMI-C group.

[Conclusion] The reductions in incidence of MACE and MI in STEMI patients with nicorandil were large, given the short period of follow-up, which have important implications for their treatment.