

Comparative Outcomes of Angiotensin-Converting Enzyme Inhibitor and Angiotensin Receptor Blocker in Diabetic Hypertensive Acute Myocardial Infarction Patients

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Background: Angiotensin-Converting Enzyme (ACE) Inhibitors and Angiotensin Receptor Blockers (ARB) are known to have similar effects on cardiovascular outcomes, and ACE inhibitors. However, data is limited whether there are similar effect on major clinical outcomes between ACEI and ARB treatments in diabetic hypertensive acute myocardial infarction (AMI) patients (pts).

Methods: A total of 6,377 diabetic hypertensive pts were selected from the prospective multicenter AMI registry in Korea, Korean Acute Myocardial Infarction Registry (KAMIR), and divided into two groups: ACEI (n=3,882) and ARB (n=2,495). Individual and major adverse cardiac events (MACE) were compared between the two groups for 2 years.

Results: During the 2-year follow-up, the ACEI group demonstrated significantly better outcomes across a majority of the clinical outcomes including total death, cardiac death, myocardial infarction, repeat revascularization, target vessel revascularization, and total MACE (table).

Conclusion: The results of this study clearly shows that ACE inhibitors should be recommended over ARB with higher priority when treating diabetic hypertensive AMI patients, particularly in a series of Korean population.

Table. Cumulative Incidence of Clinical Outcomes in Diabetic Hypertensive AMI Patients at 2 Years

Variables, %	ACEI (n=3,882)	ARB (n=2,495)	p-Value
Total death	4.4%	6.4%	0.000
Cardiac death	3.1%	4.2%	0.008
Myocardial infarction	2.0%	2.8%	0.006
Repeat revascularization	4.1%	5.7%	0.001
Target lesion revascularization	1.4%	1.9%	0.098
Target vessel revascularization	2.5%	3.8%	0.001
Non-target vessel revascularization	1.6%	1.9%	0.277
Total MACE	9.9%	12.8%	0.000