

Statin 치료가 신기능 저하 환자에서 급성심근경색 후 심혈관계 예후에 미치는 영향

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Effect of Statin Therapy on Cardiovascular Outcomes after Acute Myocardial Infarction in Patients with Advanced Renal Dysfunction

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Introduction: The role of lipid lowering therapy after acute myocardial infarction (AMI) has been well established. However some data suggested that patients with chronic kidney disease (CKD) undergoing lipid lowering therapy do not show the same changes as patients without renal impairment. So, we tried to know that the impact of statin use and lipid profiles on major adverse cardiac events (MACEs) after percutaneous coronary intervention (PCI) in AMI patients with advanced renal dysfunction (eGFR <30 ml/min per 1.73m²).

Methods: This study was based on a retrospective cohort, the Korean Acute Myocardial Infarction Registry (KAMIR) database. Among 13,897 patients who diagnosed AMI from November 2005 to July 2008, 1,123 patients (male: 603, female: 520) with advanced renal dysfunction were included. We observed the occurrence of MACEs which including cardiac death, MI, and repeated PCI or coronary artery bypass grafting during 1-year follow up period. We demonstrated the statin effect on MACEs after propensity matching system including age, history of hypertension, history of diabetes mellitus, history of angina, smoking status, total cholesterol, triglyceride, LDL-cholesterol, max CK-MB, and max Tnl.

Results: Patients with statin therapy have significantly higher total cholesterol and LDL cholesterol level (p<0.05). After propensity matching, the significant difference of lipid profile between two groups was disappeared. During the 1-year follow-up after AMI, a total of 201 patients (11.3%) experienced MACEs. In univariate Cox regression models, age, max Tnl, initial total cholesterol, initial triglyceride, initial LDL-cholesterol, history of diabetes mellitus, and statin therapy after MI were significantly associated with MACEs (p<0.05). Initial HDL-cholesterol was not an independent predictor of 12-month MACEs (p=0.823). In multivariable analyses using Cox proportional hazards models, age, max Tnl, and statin therapy after MI were significantly associated with MACEs (p<0.05). After adjustment for potential confounders, only max Tnl was independent predictors of 12-month MACEs (p=0.005). However, significant association of statin therapy and lower risk for MACEs was not found (p= 0.108).

Conclusions: Statin therapy was not associated lower risk for MACEs after MI in patients with advanced reduced kidney function. Further study is required to demonstrate the therapeutic benefits of statins in patients with advanced kidney dysfunction after AMI.

Key Words: 만성신질환, 급성심근경색, 스타틴

Chronic kidney disease, Acute myocardial infarction, Statin