

## The impact of statin intensity on long-term outcomes in elderly patients with MI

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**Background/Aims:** We aimed to investigate the long-term benefit of high intensity statin versus moderate to low intensity statin in elderly patients undergone PCI for acute MI

**Methods:** Among 13104 patients with acute MI who have undergone PCI in a nationwide, prospective registry, 4294 elderly (defined as  $\geq 70$ ) patients prescribed statin at discharge were included. 1136 patients were prescribed with high intensity statin, and 3158 patients were prescribed with moderate to low intensity. The major adverse cardiac events (MACE; all-cause death, recurrent MI, any revascularization, stroke, readmission due to heart failure [HF], or definite/probable stent thrombosis [ST]) and the components of MACE were compared in multivariable Cox regression, propensity score (PS) matched, and underwent PS-adjusted analyses

**Results:** During follow-up days, MACE, all-cause death, and cardiac death occurred in 1297 patients (30.2%), 737 patients (17.2%), and 460 patients (10.7%), respectively. The risks of MACE (26.9% vs 31.4%, hazard ratio [HR] 0.83, 95% confidence interval [CI] 0.73-0.95,  $p=0.005$ ; PS-matched:  $n=2186$ , 25.3% vs 30.8%, HR 0.79, 95% CI 0.67-0.94,  $p=0.008$ ), all-cause death (14.4% vs 18.1%, HR 0.78, 95% CI 0.65-0.93,  $p=0.005$ ; PS-matched: 13.8% vs 18.9%, HR 0.69, 95% CI 0.57-0.92,  $p=0.002$ ), cardiac death (9.5% vs 11.4%, HR 0.81, 95% CI 0.67-0.97,  $p=0.042$ ; PS-matched: 8.7% vs 11.3%, HR 0.77, 95% CI 0.61-0.96,  $p=0.031$ ), and readmission due to HF (5.5% vs 7.5%, HR 0.72, 95% CI 0.55-0.95,  $p=0.021$ ; PS-matched: 5.7% vs 8.1%, HR 0.78, 95% CI 0.59-0.96,  $p=0.017$ ) were significantly decreased in the patients received high intensity statin compared to moderate to low intensity statin. There were no significant differences in the risks of recurrent MI, any revascularization, stroke, and definite/probable ST between the groups. In patients  $\geq 80$  years, high intensity statin group had the reduced rates of MACE, all-cause death, cardiac death, recurrent MI, any revascularization, stroke, readmission due to HF, or definite/probable ST, but insignificantly.

**Conclusions:** We noted that in elderly patients after PCI for acute MI, the administration of high intensity statin was contributed to the improved long-term clinical outcomes.