The impact of statin treatment intensity after endovascular revascularization for lower extremity peripheral artery disease

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**Purpose:** There are few Asian studies on the clinical impact of statin intensity on clinical outcomes in patients with peripheral artery disease (PAD). This study investigated the clinical impact of statin intensity in patients with PAD after endovascular revascularization.

**Material and methods:** From April 2009 to June 2019, 376 patients with lower extremity PAD treated with endovascular revascularization were enrolled. They were classified into three groups according to statin intensity: no-statin, low-to-moderate intensity (LMI), and high-intensity (HI) groups. The primary outcomes were major adverse cardiovascular events (MACE) and major adverse limb events (MALE).

**Results:** During the 40-month follow-up, MACE occurred less in the HI and LMI groups than the no-statin group (11.4% vs. 16.0% vs. 39%, p<0.001).

In the adjusted Cox models, the HI group had the lowest MACE (hazard ratio [HR]: 0.347; 95% confidence interval [CI] 0.144–0.834; p=0.018) and MALE (HR: 0.344; 95% CI 0.120–0.989, p=0.048), while the LMI group had fewer MACE (HR: 0.319; 95% CI 0.169–0.604, p=0.048) than the no-statin group. HI therapy was associated with better outcomes in terms of MALE (HR: 0.377; 95% CI: 0.208–0.684; p=0.001) and repeat revascularization (HR: 0.449; 95% CI: 0.243–0.830; p=0.011) than the LMI group after the inverse probability treatment weighting analysis.

**Conclusions:** HI and LMI statin use is associated with a significant reduction of MACE than no statin use. Regarding MALE, HI statin use was associated with better outcomes than no statin or LMI statin use.

![Cumulative incidence of MACE according to Statin intensity](https://academic.oup.com/eurheartj/article/43/Supplement_2/ehac544.1973/6745106)