

Statins Loading before Percutaneous Coronary Intervention in Acute Coronary Syndrome
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Background: Early statin loading has been shown to reduce ischemic complications in patients undergoing PCI in the course of ACS and to improve indices of reperfusion in STEMI patients undergoing PPCI in small prospective randomized studies. The purpose of this study was to evaluate the effect of early statin loading in a nationwide registry of "real world" ACS patients.

Methods: ACSIS is a 2-month biannual nationwide ACS survey which documents all ACS patients admitted to each of the 26 cardiac departments in Israel. ACSIS 2010 comprised 1781 ACS patients. The study cohort consisted of the 1270 patients undergoing PCI during their in-hospital stay. Administration of statin loading and its timing were prespecified in the CRF.

Results: Statin loading was administered to 361 patients (28%) before the PCI who were compared with 909 patients (72%) who did not receive a statin before PCI. There were no differences in age (63 ± 13 vs. 62 ± 12 , $p=0.2$) or gender distribution (male: 79% vs. 81%, $p=0.6$) between groups. Pre-loaded patients were less likely to have dyslipidemia (69% vs. 78%, $p=0.01$) and to have been on chronic statin therapy prior to the index ACS (45% vs. 52%, $p=0.02$). Distribution of STEMI was similar between pre-loaded and non-pre-loaded groups (53% vs. 51%, $p=0.15$), however, among those who underwent PPCI statin loading prior to the PCI was associated with significantly higher incidence of early ST-resolution (80% vs. 66%, $p=0.003$). While statins were almost universally prescribed at discharge (98% vs. 97%, $p=0.9$), early statin loading was associated with significantly lower 30 days need for coronary re-intervention (2.8% vs. 7.9%, $p<0.001$).

Conclusions: In patients undergoing PCI for ACS, statin loading before the PCI is associated with markers of better myocardial reperfusion and less need for reintervention.