

C-12 Prognostic Impact of Periprocedural Myocardial Infarction after Rotational or Orbital
Atherectomy in Patients with Severely Calcified Coronary Lesions

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Background: Periprocedural myocardial infarction (PMI) is observed more frequently in patients with severely calcified coronary lesions treated with rotational (RA) or orbital atherectomy (OA). However, the long-term prognostic impact of PMI following RA or OA remains uncertain. Methods: This single-center, retrospective, observational study included consecutive patients undergoing percutaneous coronary intervention (PCI) with RA or OA between 2019 and 2024 in our institution. PMI was defined as an elevation in CK-MB > 5-fold the upper limit of normal (ULN) or troponin > 35-fold the ULN within 48 hours after PCI accompanied by new ECG changes. The primary endpoint was incidence of target lesion failure (TLF), defined as a composite of cardiac death, non-fatal myocardial infarction, and target lesion revascularization (TLR). Kaplan-Meier estimates were used to evaluate TLF incidence, and outcomes were compared between PMI and non-PMI groups by log-rank test. Results: A total of 463 patients were included. The incidence of TLF did not significantly differ between the PMI and non-PMI groups ($p=0.79$). Similarly, the individual components of TLF showed no significant differences. Conclusion: PMI was not associated with long-term adverse events in patients treated with RA or OA for severely calcified lesions.