

<sup>1</sup>New Tokyo Hospital

Yusuke Watanabe<sup>1</sup>, Toru Naganuma<sup>1</sup>, Sunao Nakamura<sup>1</sup>

The purpose of this study was to evaluate procedural success and in hospital outcomes of percutaneous coronary intervention (PCI) with rotational atherectomy (RA) for patients with low left ventricular ejection fraction (LVEF). Between January 2010 and March 2014, 272 consecutive patients with heavily calcified lesion underwent elective PCI with RA. Of these, 33 patients had LVEF < 35% (low LVEF group) whereas 237 patients had LVEF >35% (preserved LVEF group). The primary endpoint of this study was procedural success. Furthermore, secondary endpoints were in hospital major adverse cardiac events (MACE), which were defined as a composite of all-cause death, TLR, MI and ST death, target lesion revascularization (TLR), myocardial infarction (MI), stent thrombosis (ST). Procedural success, defined as residual stenosis < 30% with thrombolysis in MI flow 3 at final angiography, was achieved in all patients without fatal complications. Slow flow phenomenon occurred in 18.2% in low LVEF group and 2.6% in preserved LVEF group ( $p = 0.001$ ). The amount of administered noradrenalin was significantly more in low LVEF group (26.4  $\mu\text{g}$  vs. 11.1  $\mu\text{g}$ ,  $p = 0.004$ ). Furthermore, there were no significant differences in in-hospital outcomes between both groups. If mechanical and medical support was appropriately performed, procedural success rate and in-hospital outcomes of PCI with RA in patients with low LVEF were similar to patients with preserved LVEF.