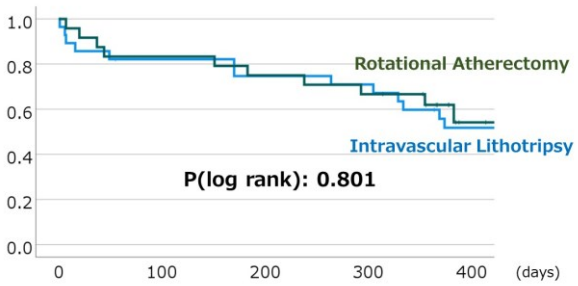
Comparison of 1 year Clinical Outcomes between Rotational Atherectomy and Intravascular Lithotripsy for Calcified Coronary Stenosis with Acute Coronary Syndrome

C-16

Yasuhiro Honda, Kensaku Nishihira, Nehiro Kuriyama, Yoshisato Shibata
Miyazaki medical association hospital

<Background> The difference of real-world clinical outcomes between rotational atherectomy (RA) and Intravascular Lithotripsy(IVL) for calcified coronary stenosis with acute coronary syndrome(ACS) is unclear.<Method and results>This study is a retrospective analysis from single center registry. Between May 2016 and July 2023, consecutive 66 ACS patients underwent primary percutaneous intervention with RA or IVL. Of these, cases with in stent lesion and cases without stent implantation were excluded. As a result, 52 patients with ACS were enrolled. The primary outcome was the incidence of 1-year major adverse cardiovascular event (MACE) after intervention. MACE was defined as a composite outcome; all cause death, non-fatal myocardial infarction and target lesion revascularization. The secondary outcomes were the incidence of slow-flow/no-reflow phenomenon, the Quantitative angiographic findings and Intravascular imaging findings.The tables show the primary outcome and the secondary outcomes. <Conclusion> For ACS with calcified coronary stenosis, there were no difference in MACE between RA and IVL. However, the incidence of slow-flow/no-reflow phenomenon was higher in RA, and the percentage of post-diameter-stenosis was bigger in IVL.

Freedom from Major Adverse Cardiovascular event



the incidence of slow-flow/no-reflow phenomenon,
the Quantitative angiographic findings and Intravascular imaging findings

	Rotational Atherectomy (n=28)	Intravascular Lithotripsy (n=24)	P Value
Slow-flow/no-reflow	46.4%(13)	16.7%(4)	0.023
Quantitative angiographic findings			
Lesion length, mm	24.4±8.8	21.6±8.5	0.262
Pre-RVD, mm	2.80±0.41	3.34±0.46	<0.001
Pre-MLD, mm	0.29±0.18	0.18±0.17	0.028
Pre-DS, %	89.9±5.8	94.7±5.0	0.005
Post-MLD, mm	2.62±0.43	3.09±0.49	0.001
Post-DS, %	10.61±6.73	18.42±12.0	0.036
Intravascular imaging findings			
Minimal stent area, mm^2	5.59±2.21	6.83±2.00	0.009

RVD : reference vessel diameter
MLD : minimum lumen diameter
DS : diameter stenosis