

P4594

5-years clinical outcomes of patients underwent percutaneous coronary intervention for calcified lesions with rotational atherectomy and second-generation drug eluting stent

K. Ogata, H. Koiwaya, K. Shinzato, Y. Goriki, G. Yoshioka, Y. Shibata

Miyazaki Medical Association Hospital, Miyazaki, Japan

Background: Percutaneous coronary Intervention (PCI) with rotational atherectomy (RA) was useful for severe calcified lesions. However, the long-term clinical outcomes of PCI with second-generation drug eluting stent (DES) following RA has been still unclear.

Purpose: The purpose of this study was to investigate the long-term clinical outcomes of RA followed by second-generation DES.

Methods: We retrospectively enrolled 254 consecutive patients treated with second-generation DES following RA. The primary outcome was the cumulative 5-year incidence of MACE, defined as cardiac death, myocardial infarction, clinically-driven target lesion revascularization and definite stent thrombosis.

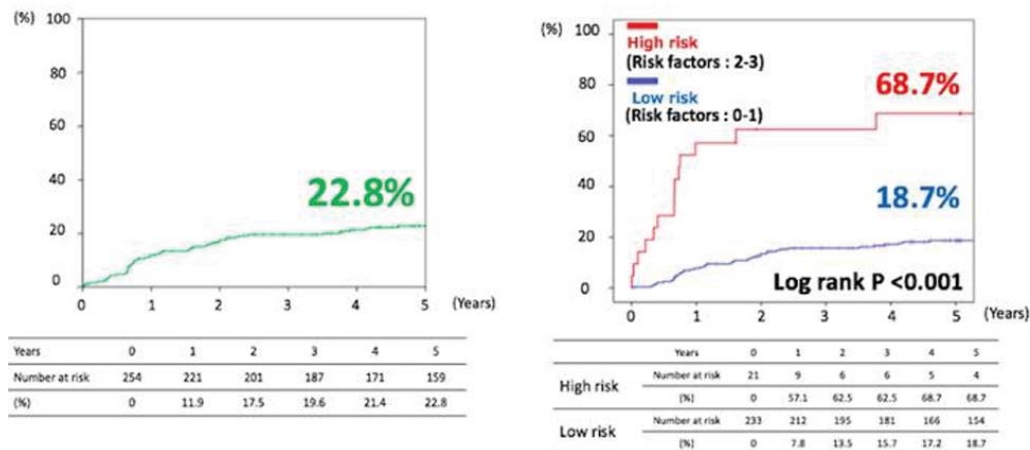
Results: The incidence of MACE was 22.8% at 5-years. Multivariate analysis showed 3 predictors of MACE, hemodialysis, diabetic mellitus and extremely angulated lesions ($>90^\circ$). Significantly higher MACE was observed in the high-risk (≥ 2 risk factors) group, compared with the low-risk (< 2 risk factors) group (68.7% vs. 18.7%, $P < 0.001$, Figure).

Conclusions: The long-term clinical outcomes of PCI for severely calcified lesions was acceptable. However, the clinical outcomes of patients classified high risk cohort was unsatisfactory.

Multivariate analysis for MACE at 5 year

	Hazard ratio (95% Confidence Interval)	P-value
Diabetic Mellitus	2.58 (1.35–4.91)	0.004
Hemodialysis	4.57 (1.64–12.76)	0.004
extremely angulated ($>90^\circ$)	3.08 (1.06–8.93)	0.04

Figure ; Kaplan–Meier curves for 5-year incidence of major adverse cardiovascular events



Kaplan–Meier curves for 5-years MACE