

¹Tokai University Hospital

Makoto Natsumeda¹, Sho Torii¹, Tsutomu Murakami¹, Yohei Ono¹, Takeshi Ijichi¹, Gaku Nakazawa¹, Naoki Masuda¹, Norihiko Shinozaki¹, Nobuhiko Ogata¹, Yuji Ikari¹

Background: Transradial intervention (TRI) is safe because of lower bleeding complications and mortality rate in patients with ST elevated myocardial infarction. Thus, TRI has been widely applied to complex percutaneous coronary intervention (PCI) in TRI high volume centers. Rotational atherectomy (RA) is effective for severely calcified lesions. However, transradial RA has not been well documented. **Objective:** To analyze the safety and feasibility of transradial RA. **Methods:** Patients with transradial RA were retrospectively reviewed for acute and late clinical outcomes up to 1 year. **Results:** Of the 2,814 PCI procedures, RA was performed in 150 (5.3%). The approach sites were radial in 67 (44.7%), and femoral in 81 (54.0%) procedures. We studied the 67 patients with transradial RA procedure. Average age was 71.3 years and male sex was 82%. The complexity of coronary lesions were Syntax Scores 25.1 ± 8.1 . Severe coronary calcification was seen in 91% (n=61). The sheath size was 7 Fr in 2 (3.0%), 6 Fr in 60 (89.6%), and 5 Fr in 5 (7.5%). The primary success rate was 98.5%. There were no deaths, bleeding complications or acute surgery. Complications within 24 hours were 3 slow flow/ no flow, 1 Q wave myocardial infarction (QWMI), 1 non-QWMI, and 1 coronary perforation that was managed with catheter embolization. Follow up coronary angiography was done in 73.1% (n=49) of the lesions. TLR was observed in 11.9% (n=8), and MACE in 17.9% (n=12) of the patients at 1 year. **Conclusion:** Transradial RA may be safe and feasible for selected patients.