1129 **Revascularization of coronary occlusion due to membranous plaques by tip detection method in cardiac arrest**

Akihiro Okamoto1, Tomohiro Yamaguchi1, Hiroki Yamaura1, Kotaro Matsumoto1, Go Kajio1, Naoki Fujisawa1, Shunsuke Kagawa1, Takenobu Shimada1, Kenichiro Otsuka1, Daiju Fukuda1

[1]Department of Cardiovascular Medicine, Osaka Metropolitan University Graduate School of Medicine, Japan

A 32-year-old man, who was treated for T-cell lymphoma with adriamycin and tyrosine kinase inhibitors, presented in cardiac arrest. Veno-arterial extracorporeal membrane oxygenation was initiated immediately. We diagnosed him as non-ST elevated myocardial infarction. Coronary angiography demonstrated the occlusion of the trifurcation in LAD. We failed to advance the Sion black into the distal LAD by angio-based conventional wiring. IVUS image of the D1 revealed a membranous plaque separating the distal lumen of LAD from D1, with no connection. The membranous plaque was precisely penetrated using a Conquest Pro 8-20 with IVUS-based real-time 3D wiring using the tip detection method. The contrast injection via the microcatheter showed the D2. We subsequently dilated the D2 using a 2.0 mm balloon. IVUS image of D2 revealed a torn membranous plaque between D2 and the distal LAD. A Gaia Next 1 was successfully advanced into the distal LAD using IVUS-based real-time 3D wiring using the tip detection method through the tear of the membranous plaque, which enabled the successful revascularization of the LAD with preferable procedure time of 55 min. The patient recovered well and was discharged 39 days after cardiac arrest. IVUS-based real-time 3D wiring using the tip detection method was useful in this unusual situation caused by two membranous plaques in a patient with cardiac arrest.