

## **Intracoronary Thrombectomy by Rescue<sup>TM</sup> Catheter in Patients with Acute Myocardial Infarction**

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**【Purpose】** From the etiological aspect of acute myocardial infarction (AMI), removal of intracoronary thrombus is a rational treatment for evolving AMI. Recently, Rescue<sup>TM</sup> Thrombectomy Catheter (RQ), a well-designed catheter to suck intracoronary thrombus, has been available. We assessed the feasibility and efficacy of RQ for the recanalization of the obstructed infarction-related coronary lesion in AMI.

**【Methods】** The study population comprised 66 consecutive patients with AMI (53 males and 13 females, mean 61 y.o.). The culprit lesions were in LAD 30, in LCX 4 and in RCA 32, respectively. Success rate, complications, characteristics of the aspirated materials and coronary perfusion state were assessed. In 55 cases, incidence of “no reflow phenomenon” was evaluated by myocardial contrast echocardiography and compared with 227 non-RQ cases.

**【Results】** RQ crossed the culprit lesion in 60 cases (91%). Neither significant bleeding complication nor MACE occurred. Visible pieces of clot were obtained in 57 cases (95%) and the mean weight was 10.4mg. Macroscopic investigation of the aspirated thrombi revealed various color tones, which had no relation to the elapsed time from the onset of AMI. TIMI 3 flow were achieved in 37 cases (62%) after thrombectomy alone, in 48 cases (78%) after adjunctive balloon inflation and/or stent implantation. Distal embolization was documented in 4 cases after thrombectomy and in 12 after adjunctive catheter intervention. Seven of them (58%) could be bailed out by additional RQ thrombectomy. Deterioration of TIMI flow grade without obstruction was not observed just after thrombectomy but in 6 after adjunctive intervention. Incidence of no reflow phenomenon was lower in RQ group than in non-RQ group (5.4% vs 26.1%), especially in RCA cases (0 vs 22.2%,  $p < 0.05$ ). In 6 cases with low-grade residual stenosis after thrombectomy alone, no adjunctive mechanical intervention was performed. No significant restenosis was thereafter documented in such RQ-alone cases during follow-up period.

**【Conclusion】** Although further investigation should be required, we tentatively conclude that the intracoronary thrombectomy by Rescue<sup>TM</sup> catheter is useful as a reperfusion therapy for AMI complementarily with conventional catheter intervention.