Supplementary Material 1. Illustrative cases

Supplementary Illustrative Case 1 (Patient 3 in Table 1)

A female in her 40s presented with aphasia and right hemiparesis (National Institutes of Health Stroke Scale [NIHSS] score, 10). She had no history of atrial fibrillation (AF), and electrocardiography showed sinus rhythm. Magnetic resonance imaging and magnetic resonance angiography (MRA) demonstrated the internal border-zone infarctions in the left middle cerebral artery territory on diffusion-weighted image and an occlusion of the left M2 superior branch (Supplementary Fig. 1A, B). Intracranial atherosclerotic disease–related large vessel occlusion (ICAD-LVO) was strongly indicated based on these clinical and angiographic features, and prasugrel 20 mg was initiated before endovascular therapy (EVT), together with intravenous ozagrel sodium. Digital subtraction angiography (DSA) confirmed the M2 superior branch occlusion, and temporary stent retriever deployment (TSRD) using a Solitaire Platinum 4×40 mm device (Medtronic) was performed with angiographic assessments every 10 minutes (Supplementary Fig. 1C, D). After 20 minutes, no in-stent thrombotic sign (IST) was observed. Accordingly, the SR was resheathed while maintaining distal microwire access, and the microcatheter was withdrawn proximally to reassess distal flow beyond the stenotic segment (Supplementary Fig. 1E). Follow-up angiography 10 minutes later confirmed stable distal flow, and the procedure was completed. The patient improved rapidly, and follow-up MRA at 2 weeks showed persistent antegrade flow despite mild residual stenosis (Supplementary Fig. 1F). She achieved a 90-day modified Rankin Scale (mRS) score of 0.

Supplementary Illustrative Case 2 (Patient 8 in Table 1)

A male in his 70s presented with right hemiparesis (NIHSS score, 17). He had no history of AF, and electrocardiography showed sinus rhythm. MRA demonstrated an occlusion of the left vertebral artery (VA). ICAD was strongly indicated based on these clinical and angiographic features, and loading dual antiplatelet therapy was initiated before EVT, together with intravenous ozagrel sodium. DSA confirmed left VA occlusion due to severe underlying stenosis (Supplementary Fig. 2A), and TSRD using a Solitaire Platinum 6×40 mm device was performed with angiographic assessments every 10 minutes (Supplementary Fig. 2B, C). After 20 minutes, no IST was observed, and the SR was resheathed while maintaining distal microwire access. The microcatheter was then withdrawn proximally to reassess distal flow beyond the stenotic segment. Follow-up angiography performed 10 minutes later demonstrated reocclusion (Supplementary Fig. 2D). Percutaneous transluminal angioplasty was performed using a UNRYU 2.0×15 mm balloon (Kaneka Medix) at 6 atmospheres, achieving sustained patency and rapid neurological improvement (Supplementary Fig. 2E, F). The patient achieved a 90-day mRS score of 1.

https://doi.org/10.5469/neuroint.2026.00430