

Stent-Assisted Recanalization in Acute Basilar Artery Occlusion

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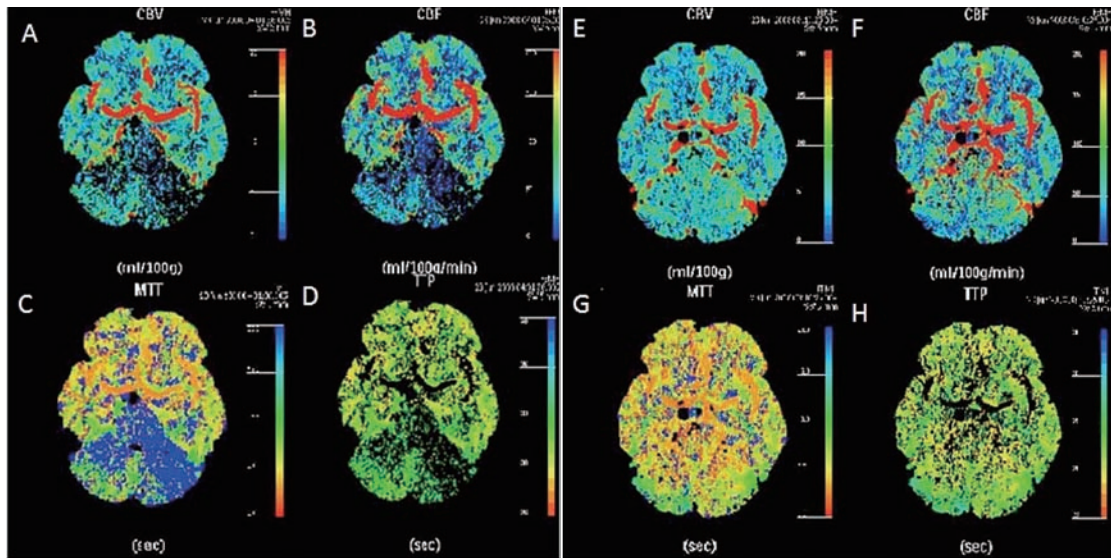


Figure 1. Perfusion CT before (A,B,C,D), and after (E,F,G,H) angioplasty and stent. A significant improvement of perfusion was noted in posterior circulation.

Lock-in syndrome is a tragedy due to the occlusion of the vertebrobasilar artery. Intravenous thrombolysis with rTPA was the only approved medicine using in mild to moderate (NIHSS 4-25) acute ischemic stroke happened within 3 hours. Patients with lock-in syndrome often belonged to severe stroke, and are excluded by traditional intra-venous thrombolysis. Intra-arterial thrombolysis is flexible to extend the therapeutic window up to 12 hours in posterior circulation, and with a higher recanalization rate. Stent-assisted recanalization is a life saving procedure for patient with acute basilar artery occlusion⁽¹⁾.

A 53-year-old man suffered from sudden onset of dizziness and hemiparesis of right side extremities on 08:15am during work. He was brought to our emergency department on 09:10am and brain computer tomography (CT) was performed on 09:31am. Neurologist evaluated the patient on 10:00am with initial NIHSS 29 and brain stem stroke was impressed. Intubation was performed on 10:20am due to conscious deterioration. We performed intra-arterial thrombolysis with partially recanalization but had a complete recover of neurological deficits on 13:30pm. However, con-

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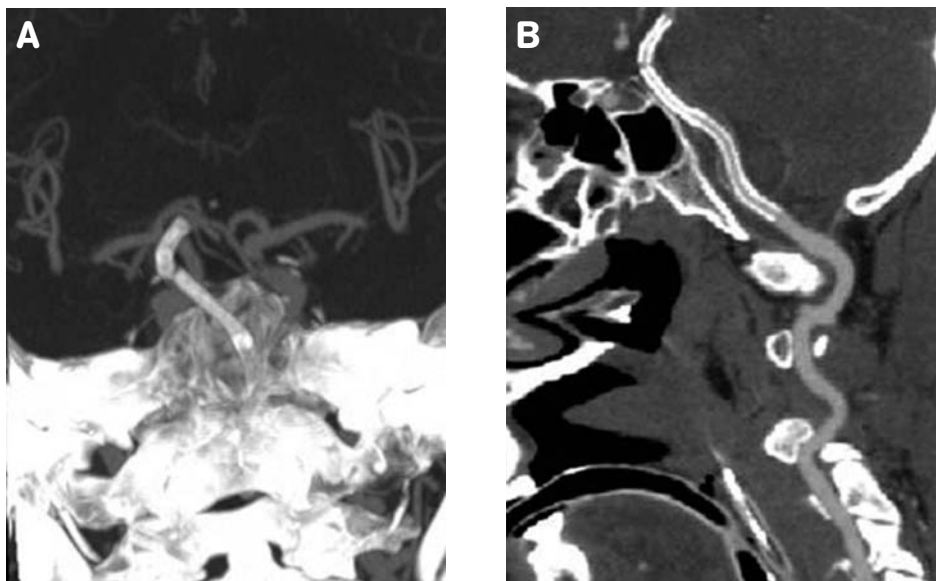


Figure 2. Coronal (A) and lateral (B) view of CT angiography showed that 4 stents were deployed from left vertebral artery to basilar artery.

scious deteriorate was noted again and brain CT perfusion defect at posterior circulation (Figure 1) was noted on 15:41pm. Emergent angioplasty and totally four consecutive balloon-expandable stents (Medtronic Driver 3.0-24mm, 3.5-18mm, 3.5-24mm, 4.0-18mm) were deployed retrograde from the basilar tip to distal portion of left vertebral artery with complete revascularization of basilar artery (Figure 2) and perfusion (Figure 1). Patient was discharged smoothly one month later with mild right arm weakness (mRS 1).

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