

## **Endovascular Treatment of Ischemic Stroke Due To Intracranial Dissection**

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**Background:** Few cases of endovascular treatment of acute ischemic strokes due to isolated intracranial dissections have been described in the literature. Theoretical concerns include higher rates of hemorrhagic complications, vessel injury and reocclusion.

**Methods:** We describe 3 patients with acute ischemic stroke due to isolated intracranial dissection treated who were successfully revascularized.

**Results:** Two patients were treated with intravenous rt-PA with early improvement but recurrence of symptoms after a few hours. Both of these patients were evaluated with emergent angiography. One was treated emergently with Wingspan stent placement to stabilize a basilar dissection, but suffered a pontine perforator infarct. The other patient was found to have a supraclinoid internal carotid artery dissection with thrombus. He had early improvement after intra-arterial bolus of eptifibatide. He was further treated with an intravenous eptifibatide infusion and administration of aspirin and clopidogrel. The third patient who was outside the time window for intravenous thrombolytics was treated with intra-arterial rt-PA 2 mg followed by intravenous eptifibatide bolus, continuous eptifibatide infusion, and early administration of aspirin and clopidogrel. The last two patients had early neurological improvement and good outcomes (modified Rankin Scale scores of 1 at 3 months). No patient suffered symptomatic intracerebral hemorrhage.

**Discussion:** Acute ischemic stroke due to intracranial dissection may be susceptible to in-situ rethrombosis after intravenous rt-PA, so our management of early antiplatelet agents seemed effective. We avoided thrombectomy devices due to theoretical concerns of further vessel injury. Early identification of intracranial dissection as the etiology of stroke may be important to guide the interventional management.