

## CASE STUDY

# Recanalization of distal medium vessel occlusion with MIVI Q4™ Aspiration Catheter

Courtesy of:  
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55 year old female with multiple sclerosis, diabetes, hyperlipidemia and hypertension presented to ER at 20:40, about 2 hours after developing stroke like symptoms. tPA was started but had to be paused secondary to high blood pressure.

**Exam results:** Severe dysarthria, LUE weakness, facial droop and L sided numbness. NIHSS 8.

**Imaging findings:** Non-contrast CT head showed favorable ASPECTS. CT Perfusion showed no core infarct and small penumbra. A posterior division right M2 occlusion was noted on CT angiogram.

### 22:28 Groin puncture right common femoral artery

90cm Infinity sheath/5 Fr Berenstein catheter used to select right ICA. MIVI Q4 Aspiration Catheter loaded with Phenom 27 micro-catheter and Aristotle 14 soft wire.

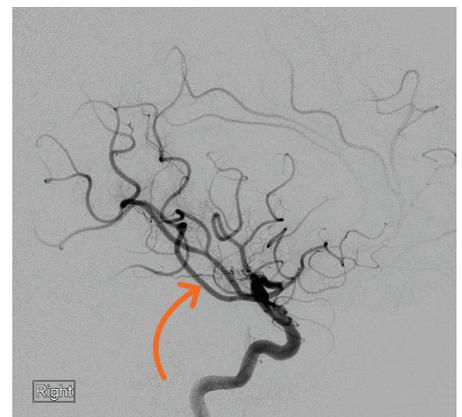
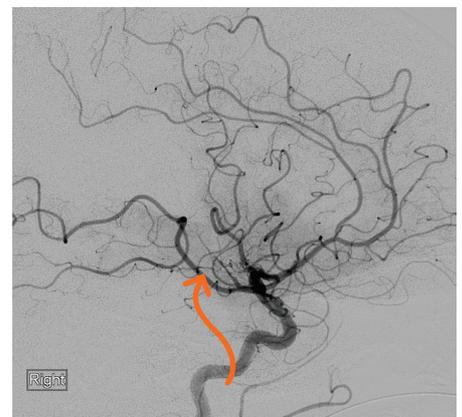
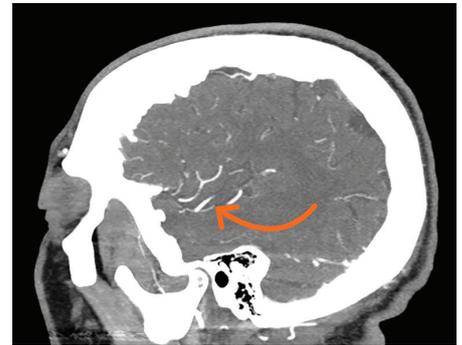
### 23:10 TIC1 3 One pass

Post-operatively, exam was notable for L sided drift and mild dysarthria which had improved from her initial presentation. MRI showed a small insular infarct. Cardiac echo showed low EF and she was started on Apixiban for presumed cardioembolic source. She was discharged to acute rehab, then home. She is now independent with her ADL's.

### Physician Comments

Management of arterial occlusions distal to the first order division of the ICA or with "low" NIHSS are controversial. A randomized controlled trial of thrombectomy vs tPA or TNK is unlikely to occur given lack of equipoise among treating physicians. At our center, the decision to pursue IAT is made on a case by case basis after discussion between Stroke Neurologist and Interventionist. This patient was young, presented early after onset of symptoms, and had a disabling deficit (severe dysarthria and LUE weakness). CTA showed favorable arch and intracranial anatomy, suggesting acceptable operative risk.

After the decision is made to intervene, attention is turned towards how to achieve favorable TIC1 result. Distal occlusions are made difficult by a dearth of useful instruments, relative to M1 or ICA terminus occlusions. We have found higher bleeding rates with stent-trievers in the distal arterial tree. MIVI catheters are right-sized for distal occlusions and offer superior aspiration force given their unique design relative to Jet D or Catalyst 5 catheters. This case exemplifies the role of aspiration in distal occlusions for achieving favorable results.



### Indications for Use:

**In the European Union,** the Q Aspiration Catheter is indicated for the removal of fresh, soft emboli and thrombi in the peripheral and neurovascular systems. It may also be used as a diagnostic angiographic catheter.

**In the United States,** the Q Catheter is indicated for use with compatible guide catheters in facilitating the insertion and guidance of microcatheters into a selected blood vessel in the peripheral, coronary and neurovascular systems. Refer to product labels and Instructions For Use for a complete list of contraindications, warnings and precautions.

Results from case studies are not necessarily predictive of results in other cases. Results in other cases may vary.