

CASE STUDY

Successful recanalization of basilar artery occlusion using MIVI Q6™ Aspiration Catheter System

Courtesy of:
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Patient History

46 year old female patient with no known vascular risk factors, presented to emergency department after being found in a comatose state. Two hours prior she had complained of an intense headache.

Non-contrast head CT showed no evidence of hemorrhage or acute ischemic lesions; a hyper-dense basilar artery was noted. (Fig. 1) On CTA a filling defect was noted in the distal mid basilar artery (BA). Based on clinical presentation and imaging findings, the decision was made to perform a cerebral angiogram and intra-arterial catheter-based thrombectomy.

Used MIVI Devices

- Direct™ 125cm Vert Curve Diagnostic Catheter
- Super 90™ (90cm) Guide Catheter
- Q6™ Aspiration Catheter

Procedure Description

The procedure was performed under general anesthesia. Patient's vasculature was accessed through the right common femoral artery. The right vertebral artery was selected with a Direct 125cm Vertebral Curve diagnostic catheter. A Super 90 guide catheter was coaxially advanced over the Direct catheter and an 0.035 guidewire and was positioned in the distal V2 segment of the right vertebral artery.

A Neuroslider 0.021" microcatheter was introduced over an 0.014" Sychro 2 guidewire and positioned in the proximal segment of the basilar artery without crossing the occlusion. (Fig. 4) A Q6 Aspiration Catheter was advanced over the microcatheter to the clot face. The microcatheter was removed and pump aspiration was initiated through the Super 90 guide catheter, while advancing the Q6 catheter 3-4mm into the clot for better contact. (Fig. 5)

After one minute of occlusive aspiration the Q6 catheter was slowly retrieved, and a control angiogram showed successful recanalization of the basilar artery assessed as TIC1 3 flow. (Figs. 6 & 7)

Time from initial groin puncture to complete reperfusion was 12 minutes.

Follow Up

Early neurological recovery with residual central right facial palsy and slight right limb dysmetria (NIHSS 3). An MRI confirmed a small left pons ischemic lesion. The patient was discharged home and, following rehab, was assessed with a 90-day mRS score of 1.

Dr. Remollo Commentary

“First-line contact aspiration in a BA occlusion can achieve better recanalization and first-pass effect, with shorter procedure duration and better clinical outcomes in comparison to stent retrievers. The novel design of the Q6 Aspiration Catheter allowing higher aspirated flow rate and greater suction force, combined with its excellent navigability, enables fast and safe treatment for posterior circulation large vessel occlusions.”



Fig. 1 Axial non-contrast CT shows a hyperdense BA.

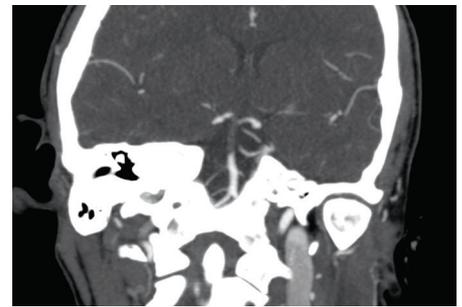


Fig. 2 Coronal reconstruction of the CTA demonstrating an occlusion of the mid distal BA.

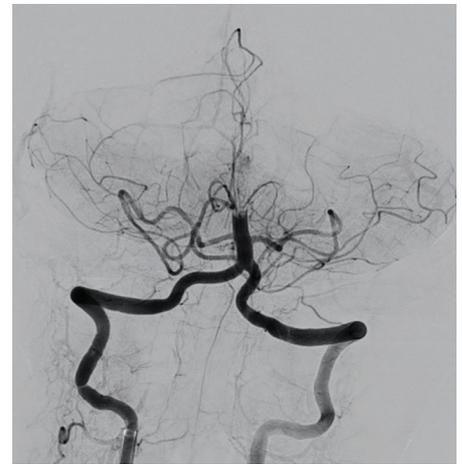


Fig. 3 Basal diagnostic angiography through the Super 90 guiding catheter.

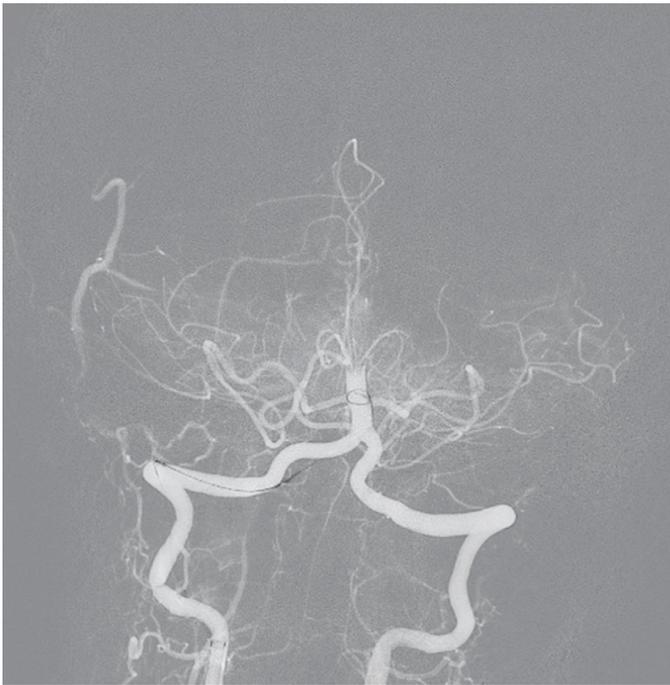


Fig. 4 Microcatheterization of the proximal BA.

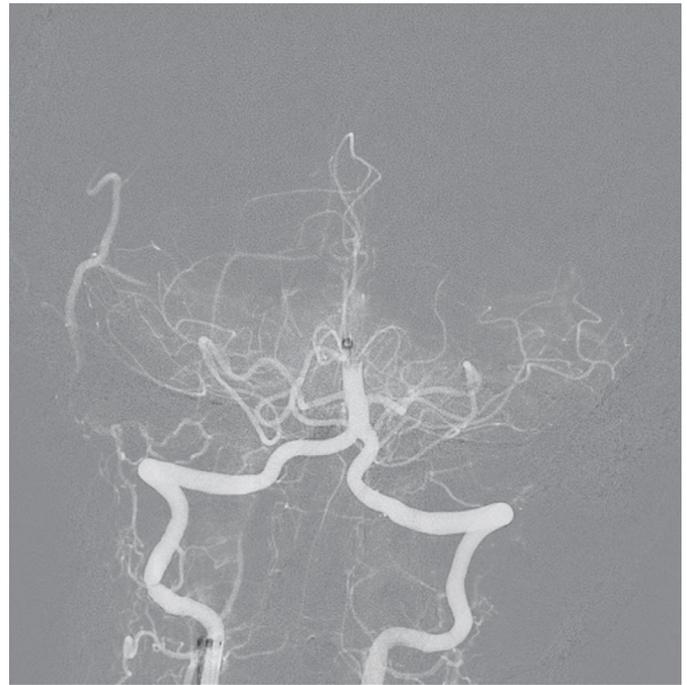


Fig. 5 Q6 Aspiration Catheter within 3-4mm of the thrombus under pump aspiration.



Fig. 6 Control after recanalization (first pass, TIC1 3)
– frontal view

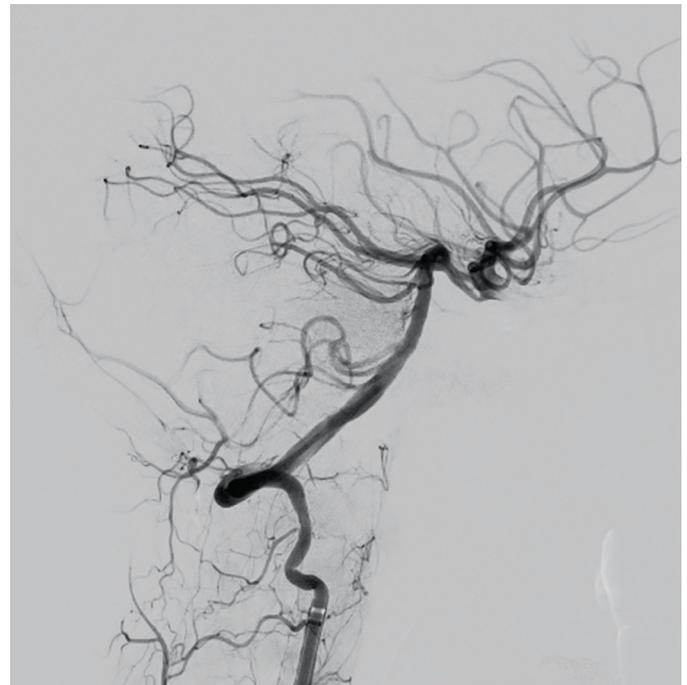


Fig. 7 Control after recanalization (first pass, TIC1 3)
– lateral view

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.