Neuroendovascular Procedure Note:

PROCEDURE PERFORMED

1) Diagnostic cerebral angiogram, as well as mechanical thrombectomy of left internal carotid and left middle cerebral artery.

Operator: Ameer E. Hassan, DO

Assistant:

Date of Service: August 1, 2012

Clinical Information:

Patient here for a diagnostic cerebral angiogram with intention to treat.

CONSENT: The risks, benefits of a conventional diagnostic cerebral angiography were discussed with the patient who agreed to proceed

ANESTHESIA: Local anesthesia and conscious sedation were provided with Versed and Fentanyl under my supervision. The nursing staff monitored the patient's vital signs during the procedure.

FLUORO TIME: 44.2 minutes.

CONTRAST: 137 mL of Isovue-370

PROCEDURE:

Left internal carotid microcatheter and embolectomy. Total runs: 18.

TECHNIQUE/FINDINGS:

Patient was brought to the angiography suite and placed in supine position. Patient's right groin was prepped and draped in standard fashion. The right common femoral artery was palpated. The artery was accessed with a 19-gauge needle and was exchanged with a 6 French sheath over a wire. The sheath was connected to a continuous heparinized saline flush.

Through the 6 French sheath, a 5 French Vert diagnostic catheter was advanced into the abdominal and thoracic aorta over a 0.035 inches Terumo guidewire.

Right common femoral artery. Pelvic view

Through the 6 French sheath angiography was performed over the right groin. Pelvic view of the right common femoral artery demonstrates in the AP projection a normal right common femoral artery and its branches the superficial and deep femoral arteries. The sheath is located above the bifurcation. There is no significant stenosis, no dissection or pseudoaneurysm.

Right internal carotid artery: Intracranial view

Under fluoroscopic guidance the catheter was advanced into the right internal carotid artery that was selectively catheterized. Angiography was performed over the cranium. Intracranial view of the right internal carotid artery in the AP and lateral projections demonstrates normal petrous, cavernous, supraclinoid segments of the right ICA. Right ICA bifurcates into the right MCA and the right ACA. The anterior communicating artery is not visualized. There is a right fetal posterior communicating artery. There is no significant stenosis, aneurysm or AVM.

Left vertebral artery: Intracranial view

Under fluoroscopic guidance the catheter was advanced into the origin of the left vertebral artery that was selectively catheterized. Angiography was performed over the cranium. Intracranial view of the left vertebral artery in the AP and oblique projections demonstrates a normal left vertebral artery. L PICA originated from the distal L vertebral artery. Basilar artery patent and bifurcates into left posterior cerebral artery. Bilateral AICA's and superior cerebellar arteries are visualized and normal. There is no aneurysm or AVM

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Under fluoroscopic guidance, a Prowler Select Plus microcatheter was advanced over a Synchro-2 microwire into the left middle cerebral artery. The wire was removed and the microcatheter run showed superior M2 filling with M1 distal clot. Solitaire 4 mm x 20 mm device was inserted into the microcatheter and placed at the distal M1 and the Prowler Select Plus was withdrawn in order to expand the stent. At this time, a run was done, which did not show flow in the M1 segment. After waiting for 5 minutes, we inflated the Merci balloon guide catheter balloon and slowly pulled back the Solitaire device. We did find a clot at the end of the Solitaire device. Intraprocedural run showed carotid terminus and middle cerebral artery recanalization, but distal M1 occlusion. Another Solitaire 4 mm x 20 mm device was inserted into the Prowler Select Plus into the superior M2 and the Prowler Select Plus was pulled back in order to deploy the stent from the superior M2 to the mid-M1. After 5 minutes, balloon was again inflated and slowly Solitaire device was withdrawn with no clot seen on the stent. The intraprocedural run showed minimal improvement at the distal M1 with some flow in the superior M2 and occlusion of the inferior M2. At this point, we removed the Prowler Select Plus catheter and introduced a Penumbra 3MAX catheter over the Synchro-2 microwire in to the distal M1. Synchro-2 was removed and a 3MAX separator was inserted and the catheter was connected to the suction/aspiration tubing. Under constant aspiration, the separator was advanced and withdrawn within the microcatheter. Intraprocedural runs were done at this time to confirm antegrade flow and after multiple attempts, we were unable to open the inferior M2 division. The microcatheter was withdrawn. The final run shows carotid terminus A1 and M1 filling with filling of the superior M2 division and no filling of the inferior M2 division. Final partial recanalization Qureshi grade 2.

We pulled down the catheter and ruled out any vasospasm or dissection in the vessel.

Upon completion of the procedure the 6 French sheath was removed. Hemostasis was obtained with a 6 French Perclose. Procedure was completed without any complications. Patient was then transferred to Neuro ICU in stable condition.

I was present for the entire procedure.

IMPRESSION:

1. There is a left internal carotid occlusion with no flow in the ACA/MCA (Qureshi grade 5).

2. After multiple attempts with Solitaire 4 mm x 20 mm device x2 and Penumbra 3MAX system, we were able to partially recanalize with complete recanalization of the left internal carotid, left A1 and left M1 with occlusion of the left inferior M2. Final Qureshi grade is 2.

PLAN: As per post IV t-PA order set.

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