OPERATIVE REPORT

Pre-op. Diagnosis:

1.Compression of vein

Post-op. Diagnosis:

1.Same, s/p cerebral angiogram and venogram

Operation:

1.Cerebral Angiogram/Venogram

Anesthesia:

Provided by onsite CRNA

Indications:

[redacted] with progressive positional head pressure, left-sided headaches, eye pain, and intermittent sensations of throat constriction with laryngeal spasms. [redacted] presents today for cerebral angiogram/venogram with venous pressure gradient measurements to further evaluate venous compression and guide next management steps in coordination with Dr. Nakaji.

Details of Procedure:

Procedure:

The risks, benefits, alternatives, and potential complication were discussed with the patient and written informed consent was obtained. The patient was placed on the angio table and the right groin was prepped with Chloraprep and draped in a sterile manner. Ultrasound was used to localize a left common femoral artery which is seen to be patent. An image was saved and stored. Local lidocaine was given to the skin and underlying tissues and a small dermatotomy was made. Under ultrasonographic guidance a 21-gauge needle was used to access the right common femoral artery and utilizing the Seldinger technique a 5 French catheter was placed.

A 5 French catheter was utilized to select the following arteries.

The right external carotid artery was selected. Biplane angiograms were performed.

The right internal carotid artery was selected. Biplane cerebral angiograms were performed.

The left internal carotid artery was then selected. Biplane cerebral angiograms were then performed.

The left external carotid artery was selected. Biplane angiograms were performed.

The left vertebral artery was selected. Biplane posterior circulation cerebral angiograms were then performed.

The right common femoral vein was punctured under ultrasound guidance using a modified Seldinger technique. Access was then upsized except a 6 French destination positioned within the right internal jugular bulb.

A 4Ffr catheter was then utilized to select the superior sagittal sinus and DSA venography was performed. Then the sheath was repositioned into the left jugular vein and pressure measurements were obtained. The catheter was then exchanged for IVUS

Catheter was then retracted into the right transverse sinus and DSA venography was performed.

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Pressure measurements:

No significant intracranial pressure gradient.
No significant extracranial jugular pressure gradient in neutral, extension, and rotation. With head flexion there is a pressure gradient with occlusion of the jugular veins (11mmHg).

The right common femoral arteriotomy was then closed with manual compression. The right common femoral venous access was closed with manual compression Steri-Strips placed the access site.

The patient tolerated the procedure well without complication.

Minimal blood loss.

No specimens sent.

Fluoro time: 5.8 min
Dose (mGy): 193mGy
Medications: 2% lidocaine, subcutaneous
Moderate sedation time: none, provided by CRNA, billed separate
Procedure time: 27 min
Contrast: 89 mL Omnipaque300

Specimens:
None

Complications:
None

Findings:
Findings:

Right Internal Carotid:

Imaging of the right anterior circulation reveals no aneurysm, stenosis, branch occlusion, or arteriovenous shunting. The middle cerebral artery branch point and region of the anterior communicating artery are well visualized and within normal limits. The carotid siphon has no significant stenosis or aneurysm. The capillary phase is unremarkable without photopenic defects. The venous is unremarkable.

Right external carotid artery:

Imaging of the external carotid artery demonstrates normal appearance of the external carotid artery without identification of vascular malformations or significant intracranial arterial supply.

Left Internal Carotid:

Imaging of the left anterior circulation reveals no aneurysm, stenosis, branch occlusion, or arteriovenous shunting. The middle cerebral artery branch point and region of the anterior communicating artery are well visualized and within normal limits. The carotid siphon has no significant stenosis or aneurysm. The capillary phase is unremarkable without photopenic defects. The venous phase reveals a dominant superficial sylvian vein and a well formed deep venous circulation.

Left external carotid artery:

Imaging of the external carotid artery demonstrates normal appearance of the external carotid artery without identification of vascular malformations or significant intracranial arterial supply.

Left Vertebral:

Imaging of the vertebral artery and posterior circulation reveals no aneurysm, stenosis, branch occlusion, or arteriovenous shunting. The basilar tip and origins of the cerebellar arteries are well visualized without evidence of aneurysm. The capillary phase is unremarkable without photopenic defects. The venous phase is unremarkable.

DSA venography: From the SSS shows codominant sinuses with mild stenoses at the TS junction.

IVUS findings:

SSS: patent
Torcula patent
LTS: patent
LSS: patent
LIJ bulb patent
LIJ C1 patent with mild stenosis at neutral position. Occlusion with flexion
LIJ C4 patent.
RIJ: C1 patent with minimal stenosis in all head positions except flexion where there is near occlusion
RIJ C4 patent
RTS: patent
RSS: patent

Notes:

IMPRESSION:
No significant pressure gradient seen in either jugular vein in neutral, rotation, or extension. There is near occlusion of the jugular veins bilaterally with head flexion resulting in a pressure gradient of 11mmHg.

No significant intracranial pressure gradient with co dominant sinuses and good communication through the torcula.

CC:
Dr. Peter Nakaji (neurosurgery)
.
Documentation contribution by Peyton Mayer, medical scribe.

Diagnosis:

1. Compression of vein - I87.1 (Primary)

Procedure Codes:

1.76937 US GUIDE, VASCULAR ACCESS. Units: 2.00.
2.36226 PLACE CATH VERTEBRAL ART.
3.36227 PLACE CATH XTRNL CAROTID. Units: 2.00.
4.36224 PLACE CATH CAROTD ART. Modifiers: 50
5.36012 PLACE CATHETER IN VEIN.
6.75870 VEIN X-RAY, SKULL.
7.75860 VEIN X-RAY, NECK.
8.37252 INTRVASC US NONCORONARY 1ST.
9.37253 INTRVASC US NONCORONARY ADDL. Units: 7.00.

Electronically signed by Nikhil Mehta , M.D. on 02/25/2026 at 03:21 PM MST
Sign off status: Completed

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