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IR JUGULAR SINUS VENOGRAM RT

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Results

New

Impression

IMPRESSION:

Cerebral venography and manometry demonstrates no flow-limiting stenosis in the interrogated veins of the head or neck.

CHRISTOPHER A HESH, MD

SYSTEM ID: D2210569

Narrative

Procedure:

- 1. Ultrasound-guided right right brachial vein access
- 2. Catheter selection, venography and manometry of the superior sagittal sinus
- 3. Catheter selection, venography and manometry of the right transverse sinus, right sigmoid sinus, and right internal jugular vein
- 4. Catheter selection, venography and manometry of the left transverse sinus, left sigmoid sinus, and left internal jugular vein
- 5. Catheter selection and manometry of the left brachiocephalic vein and right atrium

Indication: 47 years Male with cervical dystonia.

Date: 6/5/2025 1:56 PM

Comparison: CTV (11/13/24)

Operators: Dr. Hesh

Anesthesia: None

Medications:

1% lidocaine local

Contrast: Visipaque

Fluoro time: 5.9 minutes.

Equipment:

- 21G/5F Micropuncture access set
- 0.035" Bentson
- 0.035" Angled glidewire
- 4F Angled glide catheter
- 5F Vascular sheath

Complications: None immediate

TECHNIQUE:

The risks, benefits, and alternatives to the procedure were explained to the patient. The patient was placed supine. The right arm was prepped and draped in the usual sterile fashion.

Venous Access

Under direct ultrasound guidance, the right brachial vein was accessed with a 21G micropuncture needle. A 0.018" wire was advanced through the needle into the right atrium. A 5 French transition dilator was exchanged for the needle over the 0.018" wire. A 0.035" wire was then advanced through transitional dilator and into the IVC. A vascular sheath was then delivered to the level of the right subclavian vein.

Superior Sagittal Sinus, Right Transverse Sinus, Right Sigmoid Sinus, and Right Internal Jugular Venography and Manometry

A 0.035" angled glidewire and 4F angled glide catheter were used to select the superior sagittal sinus. Superior sagittal sinus venography and manometry were then performed in neutral, head right, head left, and head flexed positions. Superior sagittal sinus venography was used to determine anatomy and drainage dominance. The catheter was then retracted into the torcula, right transverse sinus, right transverse sinus-sigmoid sinus junction, right sigmoid sinus, and right internal jugular vein at the bulb, C4 and C6 levels with manometry performed at each station in neutral, head right, head left, and head flexed positions. Finally, the catheter was used to select the right atrium where manometry was performed.

Superior sagittal sinus (Neutral): 13 mmHg
Superior sagittal sinus (Head right): 14 mmHg
Superior sagittal sinus (Head left): 13 mmHg
Superior sagittal sinus (Head flexed): 14 mmHg

Torcula (Neutral): 12 mmHg
Torcula (Head right): 13 mmHg
Torcula (Head left): 13 mmHg
Torcula (Head flexed): 14 mmHg

Right transverse sinus (Neutral): 12 mmHg
Right transverse sinus (Head right): 15 mmHg
Right transverse sinus (Head left): 13 mmHg
Right transverse sinus (Head flexed): 14 mmHg

Right transverse sinus-sigmoid sinus junction (Neutral): 12 mmHg
Right transverse sinus-sigmoid sinus junction (Head right): 15 mmHg
Right transverse sinus-sigmoid sinus junction (Head left): 13 mmHg
Right transverse sinus-sigmoid sinus junction (Head flexed): 13 mmHg

Right sigmoid sinus (Neutral): 12 mmHg
Right sigmoid sinus (Head right): 15 mmHg
Right sigmoid sinus (Head left): 12 mmHg
Right sigmoid sinus (Head flexed): 13 mmHg

Right internal jugular vein [Bulb] (Neutral): 11 mmHg
Right internal jugular vein [Bulb] (Head right): 15 mmHg
Right internal jugular vein [Bulb] (Head left): 12 mmHg
Right internal jugular vein [Bulb] (Head flexed): 14 mmHg

Right internal jugular vein [C4] (Neutral): 11 mmHg
Right internal jugular vein [C4] (Head right): 15 mmHg
Right internal jugular vein [C4] (Head left): 11 mmHg
Right internal jugular vein [C4] (Head flexed): 12 mmHg

Right internal jugular vein [C6] (Neutral): 11 mmHg
Right internal jugular vein [C6] (Head right): 15 mmHg
Right internal jugular vein [C6] (Head left): 11 mmHg
Right internal jugular vein [C6] (Head flexed): 12 mmHg

Right atrial pressure (Neutral): 11 mmHg

Blood pressure at time of right atrial manometry: 117/74 mmHg

Left Transverse Sinus, Left Sigmoid Sinus, and Left Internal Jugular Venography and Manometry

The 0.035" angled guidewire and 4F angled glide catheter were used to select the left transverse sinus. Venography and manometry were then performed in neutral, head right, head left, and head flexed positions. The catheter was then retracted into the left transverse sinus-sigmoid sinus junction, left sigmoid sinus, and left internal jugular vein at the bulb, C4 and C6 levels with manometry performed at each station in neutral, head right, and head left positions. Finally, the catheter was used to select the left brachiocephalic vein and right atrium where manometry was performed.

Left transverse sinus (Neutral): 14 mmHg

Left transverse sinus (Head right): 16 mmHg

Left transverse sinus (Head left): 14 mmHg

Left transverse sinus (Head flexed): 14 mmHg

Left transverse sinus-sigmoid sinus junction (Neutral): 13 mmHg

Left transverse sinus-sigmoid sinus junction (Head right): 14 mmHg

Left transverse sinus-sigmoid sinus junction (Head left): 15 mmHg

Left transverse sinus-sigmoid sinus junction (Head flexed): 14 mmHg

Left sigmoid sinus (Neutral): 12 mmHg

Left sigmoid sinus (Head right): 14 mmHg

Left sigmoid sinus (Head left): 14 mmHg

Left sigmoid sinus (Head flexed): 13 mmHg

Left internal jugular vein [Bulb] (Neutral): 12 mmHg

Left internal jugular vein [Bulb] (Head right): 13 mmHg

Left internal jugular vein [Bulb] (Head left): 14 mmHg

Left internal jugular vein [Bulb] (Head flexed): 13 mmHg

Left internal jugular vein [C4] (Neutral): 11 mmHg

Left internal jugular vein [C4] (Head right): 13 mmHg

Left internal jugular vein [C4] (Head left): 13 mmHg

Left internal jugular vein [C4] (Head flexed): 13 mmHg

Left internal jugular vein [C6] (Neutral): 11 mmHg

Left internal jugular vein [C6] (Head right): 11 mmHg

Left internal jugular vein [C6] (Head left): 11 mmHg

Left internal jugular vein [C6] (Head flexed): 12 mmHg

Left brachiocephalic vein pressure (Neutral): 11 mmHg

Right atrial pressure (Neutral): 11 mmHg

Blood pressure at time of right atrial manometry: 120/82 mmHg

The sheath was removed. A bandage was applied. There were no immediate complications. Images were stored in PACS. The patient tolerated the procedure well, and left the angiography suite in stable condition.

FINDINGS:

1. Sonographic evaluation of the right brachial vein confirms vessel patency without thrombus. Image of needle entry sent to PACS.
2. Superior sagittal sinus venography demonstrates right-sided dominance in the head-neutral position without significant venous collateral opacification. Venography with the head rotated right demonstrates right-dominant flow without venous collateral opacification. Venography with the head rotated left demonstrates co-dominant flow without significant venous collateral opacification.
3. Left transverse sinus venography demonstrates right-sided dominance in the head-neutral position without significant venous collateral opacification. Venography with the head rotated right demonstrates co-dominant flow without significant venous collateral opacification. Venography with the head rotated left demonstrates left-dominant drainage without significant venous collateral opacification. An arachnoid granulation is present in the left transverse sinus.

Ordering provider: Christopher Hesh

Reading physician: Christopher Hesh

Study date: Jun 05, 2025 1:56 PM

Result date: Jun 12, 2025 3:18 PM

Result status: Final