

Patient Information

Name: TRENTON ASHBURN

Medical Record Number: 0062217671

Sex Code: M

BirthDate: 4/29/1978

Exam Information

Accession Number: UU11490488

Modality: US

Body Part: RUEXT

Description: US UP EX VEN & PPG THOR OUTLET SYN BIL CSC

Performed Date: 11/13/2024 9:30:31

Reason for Study: Compression of vein; TOS (thoracic outlet syndrome); 46M with TOS and IJV entrapment syndrome

Final Report

ULTRASOUND UPPER EXTREMITY VEIN AND PPG THORACIC OUTLET SYNDROME
BILATERAL 11/13/2024 10:15 AM

CLINICAL HISTORY: 46M with TOS and IJV entrapment syndrome;
Compression of vein; TOS (thoracic outlet syndrome).

COMPARISONS: None available.

REFERRING PROVIDER: YOON-HEE K CHA

TECHNIQUE: Bilateral innominate, subclavian, and axillary veins were evaluated grayscale, color Doppler, Doppler waveform ultrasound. Bilateral subclavian veins were evaluated with color Doppler and Doppler waveform imaging through abduction maneuvers.

Bilateral index finger PPG's obtained at rest and with provocative positions.

Bilateral internal jugular veins evaluated at rest with grayscale, color Doppler, and Doppler waveform ultrasound. Bilateral internal jugular veins evaluated with color Doppler and Doppler waveform ultrasound through maneuvers.

FINDINGS:

RIGHT:

REST:

INTERNAL JUGULAR VEIN: 115 cm/s, phasic, fully compressible

INNOMINATE VEIN: 43 cm/s, phasic

SUBCLAVIAN VEIN, medial: 51 cm/s, phasic

SUBCLAVIAN VEIN, mid: 38 cm/s, phasic, fully compressible

SUBCLAVIAN VEIN, lateral: 22 cm/s, phasic, fully compressible

AXILLARY VEIN: 36 cm/s, phasic, fully compressible

MID SUBCLAVIAN VEIN, sitting erect:

0 degrees: 57 cm/s, phasic

90 degrees: 0 cm/s, occluded

135 degrees: 129 cm/s, phasic

180 degrees: 164 cm/s, phasic

INTERNAL JUGULAR VEIN, sitting erect:

Neutral: 128 cm/s, phasic

Right: 218 cm/s, phasic

Left: 144 cm/s, phasic

Extension: 92 cm/s, phasic

Flexion: 163 cm/s, phasic

PPGs:

Baseline: Normal

Arms 90: Normal

Arms 180: ABNORMAL - OCCLUDED

Military: Normal

Military head right: ABNORMAL - diminished

Military head left: ABNORMAL - diminished

LEFT:

REST:

INTERNAL JUGULAR VEIN: 29 cm/s, phasic, fully compressible

INNOMINATE VEIN: 81 cm/s, phasic

SUBCLAVIAN VEIN, medial: 37 cm/s, phasic

SUBCLAVIAN VEIN, mid: 29 cm/s, phasic, fully compressible

SUBCLAVIAN VEIN, lateral: 33 cm/s, phasic, fully compressible

AXILLARY VEIN: 19 cm/s, phasic, fully compressible

MID SUBCLAVIAN VEIN, sitting erect:

0 degrees: 135 cm/s, phasic

90 degrees: 94 cm/s, phasic

135 degrees: 40 cm/s, phasic

180 degrees: 131 cm/s, phasic

INTERNAL JUGULAR VEIN, sitting erect:

Neutral: 91 cm/s, phasic

Right: 222 cm/s, phasic

Left: 155 cm/s, phasic

Extension: 188 cm/s, phasic

Flexion: 118 cm/s, phasic

PPGs:

Baseline: Normal

Arms 90: Normal

Arms 180: ABNORMAL - OCCLUDED

Military: Normal

Military head right: ABNORMAL - diminished

Military head left: ABNORMAL - OCCLUDED

IMPRESSION: Thoracic outlet/inlet physiology suggested. Correlate for

symptoms.

1. RIGHT:

- A. No subclavian venous stenosis suggested at rest.
- B. Subclavian vein occludes in 90 degrees.
- C. No internal jugular venous occlusion demonstrated with maneuvers.
- D. PPG occludes in Arms 180. Diminished in Military head right and left.

2. LEFT:

- A. No subclavian venous stenosis suggested at rest.
- B. No subclavian venous occlusion demonstrated with maneuvers.
- C. No internal jugular venous occlusion demonstrated with maneuvers.
- D. PPG occludes in Arms 180 and Military head left. Diminished in Military head right.

JASON WONG, MD

SYSTEM ID: D2208020

Principal Interpreter

Name: JASON WONG
Provider ID: 238881

Patient Information

Name: TRENTON ASHBURN

Medical Record Number: 0062217671

Sex Code: M

BirthDate: 4/29/1978

Exam Information

Accession Number: UU11490490

Modality: CT

Body Part: HEAD

Description: CTV HEAD NECK W CONTRAST

Performed Date: 11/13/2024 14:34:44

Reason for Study: Compression of vein; Neck pain; Vertigo; 46M with headache, vertigo. Venous congestion syndrome. Question vein stenosis. Styloid length.

Comments: Images in neutral and flexion per ordering.

Final Report

EXAM: CTV HEAD NECK W CONTRAST, 11/13/2024 3:08 PM

HISTORY: 46M with headache, vertigo. Venous congestion syndrome. Question vein stenosis. Styloid length.; Compression of vein; Neck pain; Vertigo.

COMPARISON: none

TECHNIQUE: Helically acquired thin section axial CT images were obtained with 1 mm collimation through the brain after intravenous bolus injection of iodinated contrast medium with a delay between administration of contrast and scanning. Image data were sent to the 3D workstation and postprocessed by the technologist and radiologist using maximum intensity pixel (MIP), multiplanar and volume rendered 3D reconstruction programs.

CONTRAST: ISOVUE 370 70cc.

FINDINGS: There is a hypodense filling defect in the left transverse sinus (6/608).

The right styloid process is surgically absent. The left styloid process measures 16 mm.

RIGHT:

In the neutral position, there is mild narrowing of the right internal jugular vein anterior to the C1 transverse process. This is mildly increased with neck flexed. Additionally there is mild narrowing of the right internal jugular vein in the flexed neck position between the posterior belly the digastric muscle and the paraspinous musculature. The significance of these findings is uncertain.

LEFT:

In the neutral position, there is mild narrowing of the left internal jugular vein anterior to the C1 transverse process. This is mildly increased with neck flexed. Additionally in the flexed neck position there is moderate narrowing of the left internal jugular vein between the posterior belly of the digastric muscle and the paraspinal musculature. The significance of these findings is uncertain.

Clear paranasal sinuses and mastoid air cells. No periapical dental lucencies. The imaged skull base, intracranial and orbital structures are within normal limits. No suspicious finding in the visualized superior mediastinum/thorax. Clear lung apices. Bilateral clavicle plate and screw fixation devices.

IMPRESSION:

1. No significant narrowing of the jugular vein between the styloid process and anterior arch of C1 in the neutral position. This is mildly increased with neck flexed bilaterally. Additionally in the flexed neck position there is moderate narrowing of the left internal jugular vein between the posterior belly the digastric muscle and the paraspinal musculature. There is also mild narrowing of the right internal jugular vein in this location. The physiologic/clinical significance of this finding is uncertain and can be seen in the absence of symptoms.
2. Small filling defect in the left transverse sinus which likely represents arachnoid granulation.

I have personally reviewed the examination and initial interpretation and I agree with the findings.

FREDERICK OTT, MD

SYSTEM ID: D2016223

Principal Interpreter

Name: FREDERICK OTT
Provider ID: 155184

Assistant Interpreter

Name: CHRISTOPHER KNOEDLER
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