

Case Report Form (CRF)

This report provides a detailed assessment of the venous and arterial systems, as well as right heart catheterization data, to capture a comprehensive patient profile and procedural outcomes. The form is organized to facilitate data capture for the study.

1. Subject Eligibility

Inclusion Criteria

Age ≥ 18 years Diagnosed OH as defined above, or OI defined by a score greater than 3 on the orthostatic hypotension questionnaire (OHQ) Patient/surrogate/healthcare proxy able to provide informed consent

Exclusion Criteria

Pregnancy/breastfeeding Active infection Coagulopathy

2. Patient Demographics and History

Study ID

Age

Medical Record Number (MRN)

Sex

Male Female Other

Ethnicity

Hispanic or Latino Not Hispanic or Latino Unknown

Race (Check all that apply)

American Indian or Alaska Native Asian Black or African American Native Hawaiian or Other Pacific Islander White Other

Height (cm)

Weight (kg)

Body Mass Index (BMI)

Medical History

Relevant Medical Conditions

Hypertension Diabetes Mellitus Coronary Artery Disease Chronic Kidney Disease Other:

Orthostatic Hypotension Etiology

Neurogenic OH Cardiogenic OH Mixed Unknown

Family History of Relevant Conditions

Yes (Specify): No

Secondary Dysautonomia Conditions

Parkinson's Multiple System Atrophy Pure Autonomic Failure Familial Dysautonomia Amyloidosis Celiac Disease Charcot-Marie-Tooth Disease Chiari Malformation Crohn's Disease Ehlers-Danlos Syndrome Ulcerative Colitis Guillain-Barre Syndrome Human Immunodeficiency Virus (HIV) Lambert-Eaton Syndrome Lupus Lyme Disease Muscular Sclerosis Rheumatoid Arthritis Sarcoidosis Sjogren's Syndrome Vitamin B and E deficiencies Diabetes

Hospitalizations and Surgical History

This section is to capture any history of major hospitalizations or surgeries, as OH symptoms can often appear following such events.

Reason for Hospitalization/Surgery

Procedure(s)

Date

Remove

Add Hospitalization/Surgical Event

Current Medications

Medications Prior to Procedure

Medication

Dose

Frequency

Remove

Add Pre-Procedure Medication Medications After Procedure

Medication

Dose

Frequency

Remove

Add Post-Procedure Medication

3. Procedural Data Collection

This section documents all physiological and anatomical data collected during the procedure, organized by pre- and post-intervention measurements.

Anesthesia Details

Type of anesthesia Select type LMA General Intubation MAC Conscious Sedation Local Anesthesia

Tidal volume (mL/kg)

Pre-Intervention Data**Venous Physiology**

Superior Sagittal Sinus	Anterior	Mid	Posterior
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			
Inferior Sagittal Sinus	Anterior	Mid	Posterior
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			
Straight Sinus	Anterior	Mid	Posterior
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			

Torcula	Segment 1	Segment 2	Segment 3
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor Some Moderate Excellent	Poor Some Moderate Excellent	Poor Some Moderate Excellent
Temperature (°C)			
Right Transverse Sinus	Lateral	Mid	Medial
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor Some Moderate Excellent	Poor Some Moderate Excellent	Poor Some Moderate Excellent
Temperature (°C)			
Left Transverse Sinus	Lateral	Mid	Medial
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor Some Moderate Excellent	Poor Some Moderate Excellent	Poor Some Moderate Excellent
Temperature (°C)			
Right Sigmoid Sinus	Superior	Middle	Inferior
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor Some Moderate Excellent	Poor Some Moderate Excellent	Poor Some Moderate Excellent
Temperature (°C)			

Left Sigmoid Sinus	Superior	Middle	Inferior
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			
Right Internal Jugular Vein	Superior	Middle	Inferior
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			
Left Internal Jugular Vein	Superior	Middle	Inferior
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			
Right Subclavian Vein	Lateral	Mid	Medial
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			

Left Subclavian Vein	Lateral	Mid	Medial
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor Some Moderate Excellent	Poor Some Moderate Excellent	Poor Some Moderate Excellent
Temperature (°C)			
Right Brachiocephalic Vein	Lateral	Mid	Medial
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor Some Moderate Excellent	Poor Some Moderate Excellent	Poor Some Moderate Excellent
Temperature (°C)			
Left Brachiocephalic Vein	Lateral	Mid	Medial
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor Some Moderate Excellent	Poor Some Moderate Excellent	Poor Some Moderate Excellent
Temperature (°C)			
Superior Vena Cava	Superior	Middle	Inferior
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor Some Moderate Excellent	Poor Some Moderate Excellent	Poor Some Moderate Excellent
Temperature (°C)			

Venous IVUS

Superior Sagittal Sinus	Anterior	Mid	Posterior
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Inferior Sagittal Sinus	Anterior	Mid	Posterior
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Straight Sinus	Anterior	Mid	Posterior
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Torcula	Segment 1	Segment 2	Segment 3
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Right Transverse Sinus	Lateral	Mid	Medial
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Left Transverse Sinus	Lateral	Mid	Medial
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Right Sigmoid Sinus	Superior	Middle	Inferior
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Left Sigmoid Sinus	Superior	Middle	Inferior
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Right Internal Jugular Vein	Superior	Middle	Inferior
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Left Internal Jugular Vein	Superior	Middle	Inferior
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Right Subclavian Vein	Lateral	Mid	Medial
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Left Subclavian Vein	Lateral	Mid	Medial
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Right Brachiocephalic Vein	Lateral	Mid	Medial
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Left Brachiocephalic Vein	Lateral	Mid	Medial
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Superior Vena Cava	Superior	Middle	Inferior
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Venous Venography

Superior Sagittal Sinus	Anterior	Mid	Posterior
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes
Inferior Sagittal Sinus	Anterior	Mid	Posterior
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes

Straight Sinus	Anterior	Mid	Posterior
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes
Torcula	Segment 1	Segment 2	Segment 3
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes

Right Transverse Sinus	Lateral	Mid	Medial
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes
Left Transverse Sinus	Lateral	Mid	Medial
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes

Right Sigmoid Sinus	Superior	Middle	Inferior
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes
Left Sigmoid Sinus	Superior	Middle	Inferior
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes

Right Internal Jugular Vein	Superior	Middle	Inferior
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes
Left Internal Jugular Vein	Superior	Middle	Inferior
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes

Right Subclavian Vein	Lateral	Mid	Medial
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes
Left Subclavian Vein	Lateral	Mid	Medial
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes

Right Brachiocephalic Vein	Lateral	Mid	Medial
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes
Left Brachiocephalic Vein	Lateral	Mid	Medial
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes

Superior Vena Cava	Superior	Middle	Inferior
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes

Arterial Angiography

Common Carotid Artery - Right	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

Common Carotid Artery - Left	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	³² No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

Internal Carotid Artery - Right	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	³⁴ No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

Internal Carotid Artery - Left	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

External Carotid Artery - Right	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

External Carotid Artery - Left	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

Subclavian Artery - Right	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	⁴² No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

Subclavian Artery - Left	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	⁴⁴ No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

Vertebral Artery - Right	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	46 No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

Vertebral Artery - Left	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	48 No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

Right Heart Cath (RHC)

Descriptor	Value
RA Pressure (mmHg)	
RV, Systolic Pressure (mmHg)	
RV, Diastolic Pressure (mmHg)	
PA, Systolic Pressure (mmHg)	
PA, Diastolic Pressure (mmHg)	
PC Wedge Pressure (mmHg)	
Mixed Venous O2 Saturation (%)	
Arterial O2 Saturation (%)	
Fick Cardiac Output (L/min)	
Fick Cardiac Index (L/min/m ²)	
Thermodilution Cardiac Output (L/min)	
Thermodilution Cardiac Index (L/min/m ²)	
IJV Temperature (°C)	

Angioplasty and Stenting Details**Intervention Details for Superior Sagittal Sinus****Angioplasty**

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Max Inflation Pressure (atm)	
Inflation Duration (s)	

Post-Angioplasty Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Stenting

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Technical Comments/Difficulties	

Post-Stenting Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Intervention Details for Inferior Sagittal Sinus

Angioplasty

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Max Inflation Pressure (atm)	
Inflation Duration (s)	

Post-Angioplasty Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Stenting

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Technical Comments/Difficulties	

Post-Stenting Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Intervention Details for Straight Sinus

Angioplasty

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Max Inflation Pressure (atm)	
Inflation Duration (s)	

Post-Angioplasty Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Stenting

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Technical Comments/Difficulties	

Post-Stenting Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Intervention Details for Torcula**Angioplasty**

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Max Inflation Pressure (atm)	
Inflation Duration (s)	

Post-Angioplasty Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Stenting

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Technical Comments/Difficulties	

Post-Stenting Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Intervention Details for Right Transverse Sinus**Angioplasty**

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Max Inflation Pressure (atm)	
Inflation Duration (s)	

Post-Angioplasty Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Stenting

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Technical Comments/Difficulties	

Post-Stenting Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Intervention Details for Left Transverse Sinus**Angioplasty**

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Max Inflation Pressure (atm)	
Inflation Duration (s)	

Post-Angioplasty Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Stenting

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Technical Comments/Difficulties	

Post-Stenting Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Intervention Details for Right Sigmoid Sinus

Angioplasty

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Max Inflation Pressure (atm)	
Inflation Duration (s)	

Post-Angioplasty Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Stenting

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Technical Comments/Difficulties	

Post-Stenting Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Intervention Details for Left Sigmoid Sinus

Angioplasty

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Max Inflation Pressure (atm)	
Inflation Duration (s)	

Post-Angioplasty Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Stenting

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Technical Comments/Difficulties	

Post-Stenting Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Intervention Details for Right Internal Jugular Vein**Angioplasty**

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Max Inflation Pressure (atm)	
Inflation Duration (s)	

Post-Angioplasty Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Stenting

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Technical Comments/Difficulties	

Post-Stenting Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Intervention Details for Left Internal Jugular Vein**Angioplasty**

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Max Inflation Pressure (atm)	
Inflation Duration (s)	

Post-Angioplasty Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Stenting

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Technical Comments/Difficulties	

Post-Stenting Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Intervention Details for Right Subclavian Vein**Angioplasty**

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Max Inflation Pressure (atm)	
Inflation Duration (s)	

Post-Angioplasty Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Stenting

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Technical Comments/Difficulties	

Post-Stenting Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Intervention Details for Left Subclavian Vein

Angioplasty

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Max Inflation Pressure (atm)	
Inflation Duration (s)	

Post-Angioplasty Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Stenting

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Technical Comments/Difficulties	

Post-Stenting Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Intervention Details for Right Brachiocephalic Vein

Angioplasty

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Max Inflation Pressure (atm)	
Inflation Duration (s)	

Post-Angioplasty Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Stenting

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Technical Comments/Difficulties	

Post-Stenting Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Intervention Details for Left Brachiocephalic Vein**Angioplasty**

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Max Inflation Pressure (atm)	
Inflation Duration (s)	

Post-Angioplasty Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Stenting

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Technical Comments/Difficulties	

Post-Stenting Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Intervention Details for Superior Vena Cava**Angioplasty**

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Max Inflation Pressure (atm)	
Inflation Duration (s)	

Post-Angioplasty Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Stenting

Descriptor	Value
Product	
Diameter (mm)	
Length (cm)	
Technical Comments/Difficulties	

Post-Stenting Imaging

Imaging Type	Performed (Yes/No)	Description
IVUS	Yes	
	No	
Venogram	Yes	
	No	
Arteriogram	Yes	
	No	

Post-Intervention Data

Venous Physiology

Superior Sagittal Sinus	Anterior	Mid	Posterior
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			
Inferior Sagittal Sinus	Anterior	Mid	Posterior
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			

Straight Sinus	Anterior	Mid	Posterior
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			
Torcula	Segment 1	Segment 2	Segment 3
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			
Right Transverse Sinus	Lateral	Mid	Medial
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			
Left Transverse Sinus	Lateral	Mid	Medial
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			

Right Sigmoid Sinus	Superior	Middle	Inferior
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			
Left Sigmoid Sinus	Superior	Middle	Inferior
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			
Right Internal Jugular Vein	Superior	Middle	Inferior
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			
Left Internal Jugular Vein	Superior	Middle	Inferior
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			

Right Subclavian Vein	Lateral	Mid	Medial
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			
Left Subclavian Vein	Lateral	Mid	Medial
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			
Right Brachiocephalic Vein	Lateral	Mid	Medial
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			
Left Brachiocephalic Vein	Lateral	Mid	Medial
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			

Superior Vena Cava	Superior	Middle	Inferior
Systolic Pressure (mmHg)			
Diastolic Pressure (mmHg)			
Mean Pressure (mmHg)			
Max Peak Pressure (mmHg)			
Min Trough Pressure (mmHg)			
Respiratory variation	Poor	Poor	Poor
	Some	Some	Some
	Moderate	Moderate	Moderate
	Excellent	Excellent	Excellent
Temperature (°C)			

Venous IVUS

Superior Sagittal Sinus	Anterior	Mid	Posterior
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Inferior Sagittal Sinus	Anterior	Mid	Posterior
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Straight Sinus	Anterior	Mid	Posterior
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Torcula	Segment 1	Segment 2	Segment 3
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Right Transverse Sinus	Lateral	Mid	Medial
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Left Transverse Sinus	Lateral	Mid	Medial
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Right Sigmoid Sinus	Superior	Middle	Inferior
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Left Sigmoid Sinus	Superior	Middle	Inferior
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Right Internal Jugular Vein	Superior	Middle	Inferior
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Left Internal Jugular Vein	Superior	Middle	Inferior
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Right Subclavian Vein	Lateral	Mid	Medial
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Left Subclavian Vein	Lateral	Mid	Medial
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Right Brachiocephalic Vein	Lateral	Mid	Medial
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Left Brachiocephalic Vein	Lateral	Mid	Medial
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Superior Vena Cava	Superior	Middle	Inferior
Stenosis	No	No	No
	Yes	Yes	Yes
Webs	No	No	No
	Yes	Yes	Yes
Septae	No	No	No
	Yes	Yes	Yes
Smoke	No	No	No
	Yes	Yes	Yes
Arachnoid Granulations	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Dynamic Compression	No	No	No
	Yes	Yes	Yes
Acute Thrombus	No	No	No
	Yes	Yes	Yes
Organized Thrombus	No	No	No
	Yes	Yes	Yes
Valve Mobility	0- Immobile	0- Immobile	0- Immobile
	1- Restricted	1- Restricted	1- Restricted
	2- Normal	2- Normal	2- Normal
Valve Thickening	No	No	No
	Yes	Yes	Yes
Valve Stenosis	No	No	No
	Yes	Yes	Yes
Leads / Wires	No	No	No
	Yes	Yes	Yes
Ports	No	No	No
	Yes	Yes	Yes
Lines	No	No	No
	Yes	Yes	Yes

Venous Venography

Superior Sagittal Sinus	Anterior	Mid	Posterior
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes
Inferior Sagittal Sinus	Anterior	Mid	Posterior
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes

Straight Sinus	Anterior	Mid	Posterior
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes
Torcula	Segment 1	Segment 2	Segment 3
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes

Right Transverse Sinus	Lateral	Mid	Medial
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes
Left Transverse Sinus	Lateral	Mid	Medial
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes

Right Sigmoid Sinus	Superior	Middle	Inferior
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes
Left Sigmoid Sinus	Superior	Middle	Inferior
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes

Right Internal Jugular Vein	Superior	Middle	Inferior
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes
Left Internal Jugular Vein	Superior	Middle	Inferior
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes

Right Subclavian Vein	Lateral	Mid	Medial
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes
Left Subclavian Vein	Lateral	Mid	Medial
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes

Right Brachiocephalic Vein	Lateral	Mid	Medial
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes
Left Brachiocephalic Vein	Lateral	Mid	Medial
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes

Superior Vena Cava	Superior	Middle	Inferior
Stagnation	No	No	No
	Yes	Yes	Yes
Extrinsic Compression	No	No	No
	Yes	Yes	Yes
Varicosities	No	No	No
	Yes	Yes	Yes
Retrograde Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Collateral Reflux	0 - None/Mild	0 - None/Mild	0 - None/Mild
	1 - Moderate	1 - Moderate	1 - Moderate
	2 - Robust	2 - Robust	2 - Robust
Thrombus	No	No	No
	Yes	Yes	Yes
Stenosis	No	No	No
	Yes	Yes	Yes

Arterial Angiography

Common Carotid Artery - Right	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	88 No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

Common Carotid Artery - Left	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

Internal Carotid Artery - Right	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	⁹² No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

Internal Carotid Artery - Left	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

External Carotid Artery - Right	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes
	No
	Description:
Fistula	Yes
	No
	Description:
Tumor	Yes
	No
	Description:
Vascular anomaly	Yes
	No
	Description:
Aneurysm	Yes
	No
	Description:
	Width (mm): Height (mm):
Right internal jugular vein visualized	No
	Yes
Left internal jugular vein visualized	No
	Yes
Right transverse sinus visualized	No
	Yes
Left transverse sinus visualized	No
	Yes
Superior ophthalmic vein visualized	No
	Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No
	Yes
Left Internal Jugular vein C1 compression	No
	Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

External Carotid Artery - Left	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	98 No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

Subclavian Artery - Right	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	100% No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

Subclavian Artery - Left	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	102 No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

Vertebral Artery - Right	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

Vertebral Artery - Left	Segment 1 (Proximal)
Comments	
ICA terminus Right	PresentAbsentUnknown
ICA terminus Left	PresentAbsentUnknown
A1 Right	PresentAbsentUnknown
A1 Left	PresentAbsentUnknown
Acom	PresentAbsentUnknown
PCOM Right	PresentAbsentUnknown
PCOM Left	PresentAbsentUnknown
P1 Right	PresentAbsentUnknown
P1 Left	PresentAbsentUnknown
Quantitative Measurements & Anomalies	
Stenosis (percentage)	
Reflux (cm)	
Stagnation (seconds)	
Dissection grade	N/A 1 (mild) 2 (moderate) 3 (severe)
Arterio venous malformation	Yes No
Fistula	Description: Yes No
Tumor	Description: Yes No
Vascular anomaly	Description: Yes No
Aneurysm	Description: Yes No
Right internal jugular vein visualized	Description: Width (mm): Height (mm): No Yes
Left internal jugular vein visualized	No Yes
Right transverse sinus visualized	No Yes
Left transverse sinus visualized	No Yes
Superior ophthalmic vein visualized	No Yes
Superior ophthalmic vein drainage	AnterogradeRetrogradeNot visualized
Right Internal Jugular vein C1 compression	No Yes
Left Internal Jugular vein C1 compression	No Yes
Sub occipital cervical plexus collaterals	0 (absent)1 (Moderate)2 (Robust)

Right Heart Cath (RHC)

Descriptor	Value
RA Pressure (mmHg)	
RV, Systolic Pressure (mmHg)	
RV, Diastolic Pressure (mmHg)	
PA, Systolic Pressure (mmHg)	
PA, Diastolic Pressure (mmHg)	
PC Wedge Pressure (mmHg)	
Mixed Venous O2 Saturation (%)	
Arterial O2 Saturation (%)	
Fick Cardiac Output (L/min)	
Fick Cardiac Index (L/min/m ²)	
Thermodilution Cardiac Output (L/min)	
Thermodilution Cardiac Index (L/min/m ²)	
IJV Temperature (°C)	

Post-Intervention Blood Pressure Recording**Arm BP Measurement:**

Systolic BP (mmHg)

Diastolic BP (mmHg)

Date/Time Recorded

Time Since Intervention

Leg BP Measurement:

Systolic BP (mmHg)

Diastolic BP (mmHg)

Date/Time Recorded

Time Since Intervention

4. Questionnaires**Orthostatic Hypotension Questionnaire (OHQ)**

Patient Instructions: We are interested in measuring the symptoms that occur because of your problem with low blood pressure (orthostatic hypotension) and the degree that those symptoms may interfere with your daily activity. It is important that we measure the symptoms that are due ONLY to your low blood pressure, and not something else (like diabetes or Parkinson's disease). Many people know which of their symptoms are due to low blood pressure. Some people who have recently developed problems with low blood pressure may not easily distinguish symptoms of low blood pressure from symptoms caused by other conditions. In general, symptoms of your low blood pressure problem will appear either upon standing or after you have been standing for some time, and will usually improve if you sit down or lie down. Some patients even have symptoms when they are sitting which might improve after lying down. Some people have

symptoms that improve only after sitting or lying down for quite some time.

Please answer the questions below keeping in mind that we want to know only about those symptoms that are from your problem with low blood pressure.

OH SYMPTOM ASSESSMENT (OHSA)

Please mark the number on the scale that best rates how severe your symptoms from low blood pressure have been on the average over the past week. You should respond to every symptom. If you do not experience the symptom, mark zero (0). **YOU SHOULD RATE ONLY THE SYMPTOMS THAT ARE DUE TO YOUR LOW BLOOD PRESSURE PROBLEM.**

OHSA Total Score: 0 Classification: None

1. Dizziness, lightheadedness, feeling faint, or feeling like you might
black out

1. None 1 2 3 4 5 6 7 8 9 10. Worst possible

2. Problems with vision (blurring, seeing spots, tunnel vision, etc.)

3. None 1 2 3 4 5 6 7 8 9 10. Worst possible

4. Weakness

5. None 1 2 3 4 5 6 7 8 9 10. Worst possible

6. Fatigue

7. None 1 2 3 4 5 6 7 8 9 10. Worst possible

8. Trouble concentrating

9. None 1 2 3 4 5 6 7 8 9 10. Worst possible

10. Head and neck discomfort

11. None 1 2 3 4 5 6 7 8 9 10. Worst possible

OH DAILY ACTIVITY SCALE (OHDAS)

We are interested in how the low blood pressure symptoms that you experiences affect daily life. Please rate each item by ticking the number that best represents how much on the average the activity has been interfered with over the past week by the low blood pressure symptoms you have experienced. If you cannot do the activity for reasons other than low blood pressure, please mark that response.

OHDAS Average Score: 0 Classification: None

1. Activities that require standing for a short time

Cannot do for other reasons

1. No interference 1 2 3 4 5 6 7 8 9 10. Total interference

2. Activities that require standing for a long time

Cannot do for other reasons

1. No interference 1 2 3 4 5 6 7 8 9 10. Total interference

2. Activities that require walking for a short time

Cannot do for other reasons

1. No interference 1 2 3 4 5 6 7 8 9 10. Total interference

2. Activities that require walking for a long time

Cannot do for other reasons

1. No interference 1 2 3 4 5 6 7 8 9 10. Total interference

OHQ Combined Average Score: 0.00 Classification: None

5. Quality of Life (QoL) Questionnaire

Patient Instructions: Please answer the following questions to the best of your ability, considering your health over the past four weeks.

1. In general, would you say your health is:
2. Excellent 2. Very good 3. Good 4. Fair 5. Poor
3. Compared to one year ago, how would you rate your health in general

now?

1. Much better now than one year ago 2. Somewhat better now than one
- year ago 3. About the same 4. Somewhat worse now than one year ago 5. Much worse now than one year ago

The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much? (Circle One Number on Each Line)

Activity

Yes, Lin

3. Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports
4. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf
5. Lifting or carrying groceries
6. Climbing several flights of stairs
7. Climbing one flight of stairs
8. Bending, kneeling, or stooping
9. Walking more than a mile
10. Walking several blocks
11. Walking one block
12. Bathing or dressing yourself

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health? (Circle One Number on Each Line)

Problem

Yes No

13. Cut down the amount of time you spent on work or other activities
14. Accomplished less than you would like
15. Were limited in the kind of work or other activities
16. Had difficulty performing the work or other activities (for example, it took extra effort)

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)? (Circle One Number on Each Line)

Problem	Yes	No
17. Cut down the amount of time you spent on work or other activities		
18. Accomplished less than you would like		
19. Didn't do work or other activities as carefully as usual		

1. During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups? (Circle One Number)

1. Not at all 2. Slightly 3. Moderately 4. Quite a bit 5. Extremely

2. How much bodily pain have you had during the past 4 weeks? (Circle One Number)

1. None 2. Very mild 3. Mild 4. Moderate 5. Severe 6. Very severe

2. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)? (Circle One Number)

1. Not at all 2. A little bit 3. Moderately 4. Quite a bit 5. Extremely

These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past 4 weeks... (Circle One Number on Each Line)

Question	All of the Time	Most of the Time
23. Did you feel full of pep?		
24. Have you been a very nervous person?		
25. Have you felt so down in the dumps that nothing could cheer you up?		
26. Have you felt calm and peaceful?		
27. Did you have a lot of energy?		
28. Have you felt downhearted and blue?		
29. Did you feel worn out?		
30. Have you been a happy person?		
31. Did you feel tired?		

1. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)? (Circle One Number)

1. All of the time 2. Most of the time 3. Some of the time 4. A little of the time 5. None of the time

How TRUE or FALSE is each of the following statements for you. (Circle One Number on Each Line)

Statement	Definitely True	Mostly True	Don't Know	Mostly
33. I seem to get sick a little easier than other people				
34. I am as healthy as anybody I know				
35. I expect my health to get worse				
36. My health is excellent				
1. I was bothered by things that don't usually bother me.				
Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)				
1. I did not feel like eating; my appetite was poor.				
Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)				
1. I felt that I could not shake off the blues even with the help of my family or friends.				
Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)				
1. I felt that I was just as good as other people.				
Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)				
1. I had trouble keeping my mind on what I was doing.				
Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)				
1. I felt depressed.				
Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)				
1. I felt everything I did was an effort.				
Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)				
1. I felt hopeful about the future.				
Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)				
1. I thought my life had been a failure.				
Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)				
1. I felt fearful.				
Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)				
1. My sleep was restless.				
Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)				

1. I was happy.

Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)

1. I talked less than usual.

Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)

1. I felt lonely.

Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)

1. People were unfriendly.

Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)

1. I enjoyed life.

Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)

1. I had crying spells.

Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)

1. I felt sad.

Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)

1. I felt that people disliked me.

Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)

1. I could not get “going”.

Rarely or none of the time (<1 day) Some or a little of the time (1-2 days) Occasionally or a moderate amount of the time (3-4 days) Most or all of the time (5-7 days)

5. Adverse Event Form (AE)

Study ID / Number

Adverse Event Form Date

Date of Site Awareness

Adverse Event Term

Start Date and Time

Description of Event

Severity

Mild Moderate Severe

Seriousness Criteria (if applicable)

Death

No Yes

Life Threatening Illness/Injury

No Yes

Hospitalization

No Yes

Disability / Permanent Impairment

No Yes

Chronic Disease

No Yes

Medical/Surgical Intervention

No Yes

Other (If yes, specify)

No Yes

Relationship

Related to Trial Procedure

No Yes

Investigator Assessed Relationship

Action Taken

Change in medication Surgical intervention Other – specify

Outcome of Event

Fatal Not recovered / not resolved Recovered / resolved Recovered / resolved with sequelae
Recovering / resolving Unknown

Completed By

Date

MD Signature (type name)
