



10580 Wayzata Boulevard, Suite 200 Minnetonka, MN 55305 Phone: 763.475.3388 e-mail: penrad@penrad.com

| Name | Jones, Phil | | |
|---------------------|-------------|---|---------------------|
| Exam ID | 97330 | Med Rec No. 10831159 | |
| Exam Dat | 9/8/2010 | Date of Birth 4/11/1963 Age 47 Sex Male | |
| | | Referred By Jackson, Hollins | Admission Inpatient |
| Risk Factors | 6 | V. S. History | Room # |
| Alcohol Abuse | 2 | AAA aneurysm repair | Prior Exam: |
| CABG | | PTA; renal or visceral | Limited: No |

CABG

Medications

Reason for Study

747.69 Periph vasc. anamoly-other specified site

Ankle Brachial Indices

| Ankle Pressures | | | | | | | Femoral V | Vaveforms |
|-----------------|-------|------|-----------|-------|------|-----------|-----------|-----------|
| | Right | | | Left | | | Right | Left |
| Location | Press | ABI | Waveforms | Press | ABI | Waveforms | Biphasic | Triphasic |
| Brachial | 154 | | | 150 | | | | |
| Dor. Pedis | 131 | 0.85 | Reduced | 174 | 1.13 | Normal | | |
| Post. Tibial | 121 | 0.79 | Reduced | 167 | 1.08 | Normal | | |
| Peroneal | | | | | | | | |
| Great Toe | | | | | | | | |

Interpretation:

- *Right:* Mildly decreased right ankle pressure index. Reduced ankle waveforms of the right lower extremity. Evidence of iliac artery obstruction by CFA doppler waveform analysis.
- *Left:* Normal ankle pressure index of the left lower extremity. Normal ankle waveforms of the left lower extremity. No evidence of iliac artery obstruction by CFA doppler waveform analysis.

Impression:

- *Right:* This exam reveals mildly decreased perfusion of the right lower extremity.
- *Left:* This exam reveals normal perfusion of the left lower extremity.

Phy Sulto Phil White, M.D.

4/20/2011

Performed By: Transcribed:

Jack Johnson, RVT 9/8/2010





Sex Male

10580 Wayzata Boulevard, Suite 200 Minnetonka, MN 55305 Phone: 763.475.3388 e-mail: penrad@penrad.com

| Name | Jones, Phil |
|----------|-------------|
| Exam ID | 97329 |
| Exam Dat | 9/8/2010 |

Risk Factors Alcohol Abuse

CABG

Medications

 Med Rec No.
 10831159

 Date of Birth
 4/11/1963
 Age
 47

 Referred By
 Jackson, Hollins

V. S. History

AAA aneurysm repair PTA; renal or visceral

Reason for Study

441.3 Abdominal aneurysm -ruptured

Admission Inpatient Room # Prior Exam: Limited: No

Aneurysm Survey

| Vessel | | Right | | | Left | Left | | |
|----------|-------------|---------|----------|-----|------|----------|--|--|
| | A-P | Lat | Thrombus | A-P | Lat | Thrombus | | |
| Prox | .95 cm. | .74 cm. | Present | cm. | cm. | Present | | |
| Mid | .85 cm. | .95 cm. | Present | cm. | cm. | Present | | |
| Distal | .74 cm. | .84 cm. | Present | cm. | cm. | Present | | |
| Prox | SFA .87 cm. | .99 cm. | Present | cm. | cm. | Present | | |
| Mid | FA 2.5 cm. | 2.6 cm. | Present | cm. | cm. | Present | | |
| Distal | SFA .95 cm. | .94 cm. | Present | cm. | cm. | Present | | |
| Prox I | OP .65 cm. | .54 cm. | Present | cm. | cm. | Present | | |
| Mid I | OP .54 cm. | .54 cm. | Present | cm. | cm. | Present | | |
| Distal I | OP .68 cm. | .68 cm. | Present | cm. | cm. | Present | | |

Noninvasive evaluation of the lower extremity native arteries with B-mode imaging, color Doppler, spectral Doppler analysis and representative diameter measurements.

Interpretation:

The maximum diameter measurement of the right superficial femoral artery is 2.6 cm.

Impression:

Aneurysm noted on the right superficial femoral artery.

SWR:6 9/8/2010 anno James S White, M.D.

Performed By: Transcribed: *Matella Morris, RDMS, RVT 9/8/2010*





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| Name | Jones, Phil | | |
|---------------------|-------------|--------------------------------|------------|
| Exam ID | 97331 | Med Rec No. 10831159 | |
| Exam Dat | 9/8/2010 | Date of Birth 4/11/1963 Age 47 | 7 Sex Male |
| | | Referred By Jackson, Hollins | |
| Risk Factors | 5 | V. S. History | |
| Alcohol Abuse | 2 | AAA aneurysm repair | |

AAA aneurysm repair PTA; renal or visceral

Reason for Study

441.3 Abdominal aneurysm -ruptured

Admission Inpatient Room # **Prior Exam:** Limited: No

Aorta Duplex Evaluation

| | | Diameter Me | asurements | Aneurysm Measurements | | |
|---------------|---------|-------------|------------|-----------------------|----------------------|---------|
| | Lat | Ant / Post | | | and Velociti | es |
| Supra-renal: | 2.50 cm | 2.30 cm | | | Residual Lumen: | 1.20 cm |
| Juxtra-renal: | 2.40 cm | 2.50 cm | | | Aneurysm Length: | 3.25 cm |
| Infra-renal: | 4.50 cm | 4.56 cm | | | Aorta Prox Velocity: | 50 cm/s |
| | Right | | Left | | Aorta Dist Velocity: | 54 cm/s |
| - | Lat | Ant / Post | Lat | Ant / Post | | |
| Common Iliac: | cm | cm | cm | cm | | |
| Femoral: | cm | cm | cm | cm | | |
| Popliteal: | cm | cm | cm | cm | | |

Interpretation:

The maximum aorta artery diameter measurement is 4.56 cm. measured at the infra-renal longitudinal level.

Impression:

CABG

Medications

Moderate dilatation of the abdominal aorta is noted at the infra-renal transverse and infra-renal longitudinal levels.

Phil White, M.D.

4/20/2011

Performed By: Transcribed:

Jack Johnson, RVT 9/8/2010





10580 Wayzata Boulevard, Suite 200 Minnetonka, MN 55305 Phone: 763.475.3388 e-mail: penrad@penrad.com

Name Jones, Phil 97332 Exam ID Exam Dat 9/8/2010

Risk Factors Alcohol Abuse CABG Medications

Med Rec No. 10831159 **Date of Birth** 4/11/1963 Sex Male **Age** 47 Referred By Jackson, Hollins V. S. History AAA aneurysm repair PTA; renal or visceral **Reason for Study**

Admission Inpatient Room # Prior Exam: Limited: No

747.69 Periph vasc. anamoly-other specified site Arterial Duplex Examination

Interpretation:

Right: Pressures are invalid due to presumed medial wall calcification.

Direct duplex scanning of the right groin area reveals a cystic structure measuring 2.24 cm x 2.14 cm. Active flow is not detected.

Impression:

Right: Hematoma of right groin area status post cardiac cath procedure.

Phil White, M.D.

4/20/2011

Performed By: Transcribed:

Jack Johnson, RVT 9/8/2010





10580 Wayzata Boulevard, Suite 200 Minnetonka, MN 55305 Phone: 763.475.3388 e-mail: penrad@penrad.com

| Name | Jones, Phil | | |
|--------------------|-------------|---|---------------------|
| Exam ID | 97333 | Med Rec No. 10831159 | |
| Exam Dat | 9/8/2010 | Date of Birth 4/11/1963 Age 47 Sex Male | |
| | | Referred By Jackson, Hollins | Admission Inpatient |
| Risk Factor | S | V. S. History | Room # |
| Alcohol Abus | e | | Prior Exam: |
| CABG | | Reason for Study | Limited: No |
| Medication | S | | |

Bypass Graft Surveillance

| Date of Graft: | <u>5/10/2010</u> | <u>10/2010</u> Sid | | de: | Inflow A Outflow | tery: Artery: | <u>Common femoral</u> Below-knee Poplitea | Conduit: <u>Insi</u> al | <u>tu Vein</u> | |
|----------------|--------------------------|--------------------|------|----------------|---------------------|------------------|--|----------------------------|----------------|--|
| | Brachial/Ankle Pressures | | | | Velocities | | | | | |
| | Location | Right | Left | Location | PSV | Ratio | Waveforms | Comments | | |
| | Brachial | 150 | 150 | Inflow Artery | 100 | | Triphasic | | | |
| | Ankle | 84 | 160 | Prox. Anast. | 100 | 1.00 | Triphasic | | | |
| | ABI | 0.56 | 1.07 | Prox. Graft | 100 | 1.00 | Triphasic | | | |
| | | | | Prox/Mid Graft | 541 | 5.41 | Monophasic | | | |
| | | | | Mid Graft | 100 | .18 | Monophasic | | | |
| | | | | Dist/Mid Graft | 100 | 1.00 | Monophasic | | | |
| | | | | Dist Graft | 100 | 1.00 | Monophasic | | | |
| | | | | Distal Anast. | 100 | 1.00 | Monophasic | | | |
| | | | | Outflow Artery | 100 | 1.00 | Monophasic | | | |

Interpretation:

Moderately decreased right ankle pressure index consistant with claudication. Significant velocity increase of the right proximal/mid graft artery of the bypass graft. Normal ankle pressure index of the left lower extremity.

Impression:

This exam reveals moderately decreased perfusion of the right lower extremity.

75 -99% of the right bypass graft. Graft threatening stenosis.

This exam reveals normal perfusion of the left lower extremity.

Phil White, M.D.

9/9/2010

Performed By: Transcribed:

Jack Johnson, RVT 9/8/2010





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| Name | Jones, Phil | | |
|---------------------|-------------|---|---------------|
| Exam ID | 97334 | Med Rec No. 10831159 | |
| Exam Dat | 9/8/2010 | Date of Birth 4/11/1963 Age 47 Sex Male | |
| | | Referred By Jackson, Hollins | Admission Inp |
| Risk Factors | 5 | V. S. History | Room # |

Alcohol Abuse

CABG Medications

Reason for Study

433.11 Carotid Stenosis/Occl w/CVA

Carotid Duplex Exam

Admission Inpatient Room # Prior Exam: Limited: No

| | | Right | | | | | | Left | | | |
|-------------|-------|-------|---|---------|--------------|--------|-------|------|--------|---------------|--|
| | PSV | EDV | % | Grade | Plaque Desc. | PSV | EDV | % | Grade | Plaque Desc. | |
| Prox CCA | 57 | 12 | 0 | 0% | | 47 | 15 | 0 | 0% | | |
| Mid CCA | 87 | 15 | 0 | 0% | | 54 | 10 | 0 | 0% | | |
| Distal CCA | 74 | 12 | 0 | 0% | | 45 | 11 | 0 | 0% | | |
| Bulb | 75 | 15 | 0 | 0% | | 60 | 17 | 0 | 0% | | |
| Prox ICA | 69 | 8 | 0 | 0% | | 60 | 16 | 0 | 0% | | |
| Mid ICA | 101 | 21 | 0 | 0% | | 187 | 85 | 60 | 60-79% | Homogeneous | |
| Distal ICA | 110 | 25 | 0 | 0% | | 100 | 10 | 0 | 0% | | |
| ECA | 89 | | | 0% | | 100 | | | 0% | | |
| Vertebral | Anteg | rade | | | | Retrog | grade | | | | |
| Subclavian | Norma | al | | ICA/CC/ | A Ratio: 1.9 | Abnor | mal | | ICA/CO | CA Ratio: 4.2 | |
| Brachial BP | 150 / | 80 | | | | 100 / | 60 | | | | |

This exam is an extracranial analysis of the carotid artery system utilizing pulsed wave doppler, color doppler and B-mode imaging. Vertebral and subclavian arteries are examed in the same manner.

Technical Limitations:

Frequent patient movement

Interpretation:

Right: No plaque formation of the right CCA.

No plaque formation of the right ICA.

Left: No plaque formation of the left CCA.

Moderate homogeneous plaque formation of the left mid ICA; Doppler findings suggests a hemodynamically significant stenosis.

Impression:

- *Right:* The right internal carotid artery appears within normal limits by duplex imaging. The right verterbral artery flow is antegrade.
- *Left:* 60-79% stenosis of the left mid ICA with moderate hemodynamic significance based on pulse Doppler criteria. ICA/CCA ratio indicates a stenosis greater than 70%. Subclavian steal with reversed vertebral artery flow direction noted on the left side. The left brachial pressure is significantly lower than the right.

Un Sulto

Phil White, M.D.

9/9/2010

Performed By: Transcribed: *Jack Johnson, RVT* 9/8/2010





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 Name
 Jones, Phil

 Exam ID
 97335

 Exam Dat
 9/8/2010

Risk Factors Alcohol Abuse CABG Medications Med Rec No. 10831159 Date of Birth 4/11/1963 Age 47 Sex Male Referred By Jackson, Hollins V. S. History

Reason for Study

729.5 Pain in limb

Admission Inpatient Room # Prior Exam: Limited: No

Dialysis Access Graft Duplex Evaluation

| | | | Flow | Image Characteristics |
|----------------|---------------|---------------------|------------|-----------------------|
| | | Inflow Artery | 74 cc/min | Patent |
| Type of Graft: | Transposition | Inflow Anastomosis | 85 cc/min | Patent |
| Inflow Artery: | Brachial | Mid Graft Inflow | 541 cc/min | Stenosis |
| Outflow Vein: | Basilic | Mid Graft OutfFlow | 121 cc/min | Patent |
| | | Outflow Anastomosis | 84 cc/min | Patent |
| | | Efferent Vein | 77 cc/min | Patent |

Interpretation:

Increased velocity is noted at the mid graft inflow.

Impression:

A hemodynamically significant stenosis is noted of the mid graft inflow.

Wayne K. Kenning MD Wayner K. Baker M.D.

9/12/2010

Performed By: Transcribed: **Jack Johnson, RVT** 9/8/2010





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| Name | Jones, Phil |
|----------|-------------|
| Exam ID | 97336 |
| Exam Dat | 9/8/2010 |

Risk Factors Alcohol Abuse

CABG Medications Med Rec No. 10831159 Date of Birth 4/11/1963 **Age** 47 Sex Male Referred By Jackson, Hollins V. S. History AAA aneurysm repair PTA; renal or visceral

Reason for Study

729.5 Pain in limb

Admission Inpatient Room # Prior Exam: Limited: No

Digits with Cold Water Immersion

| | | | | Ambient Tem | Cold Water Immersion Data | | | | |
|-------|-----|-------|-------|-------------|---------------------------|-------|-----------|-----------|-----------|
| | | Right | | | | L | eft | Right | Left |
| | | Press | Index | Waveforms | Press | Index | Waveforms | Waveforms | Waveforms |
| Brach | ial | 150 | | | 150 | | | | |
| Forea | m | 150 | 1.00 | Normal | 151 | 1.01 | Normal | Normal | Normal |
| Digi | t 1 | 120 | 0.80 | Normal | 120 | 0.80 | Normal | Abnormal | Normal |
| Digi | t 2 | 120 | 0.80 | Normal | 120 | 0.80 | Normal | Abnormal | Normal |

Interpretation:

- *Right:* No evidence of decreased perfusion of the right upper extremity. No evidence of digital pressure decreases of the right upper extremity. Normal waveforms are noted of the right upper extremity. Decreased perfusion is noted of the right digits after ice water immersion.
- *Left:* No evidence of decreased perfusion of the left upper extremity. No evidence of digital pressure decreases of the left upper extremity. Normal waveforms are noted of the left upper extremity. Normal arterial response to ice water immersion of the left upper extremity.

Impression:

Right: This exam reveals normal perfusion of the right upper extremity. No evidence of digital pressure decreases of the right upper extremity. Digital waveforms indicate normal perfusion of the right upper extremity. Waveform analysis post ice water immersion is consistent with a vasospastic process of the right upper extremity.

Left: This exam reveals normal perfusion of the left upper extremity. No evidence of digital pressure decreases of the left upper extremity. Digital waveforms indicate normal perfusion of the left upper extremity. Waveform analysis post ice water immersion is not consistent with a vasospastic process of the left upper extremity.

My Julito

Phil White. M.D.

11/16/2010

Performed By: Transcribed:

Jack Johnson, RVT 9/8/2010

PenVasc

PenRad Technologies, Inc.

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 Name
 Jones, Phil

 Exam ID
 97337

 Exam Dat
 4/8/2011

Risk Factors

Medications

Alcohol Abuse CABG Med Rec No. 10831159 Date of Birth 4/11/1963 A Referred By Baker, Referring V. S. History AAA aneurysm repair

AAA aneurysm repair PTA; renal or visceral

Reason for Study

794.2 Abnormal lung scan

Admission Inpatient Room # Prior Exam: Limited: No

Age 47 Sex Male

Echocardiogram

| <u>M-Mode/2-I</u> |) Mea | surements | Aor | tic Va | lve | LV Function | Pericardial Effusion |
|-------------------|---------|---------------|---------------|-------------|---------------|-------------------------------------|-----------------------------|
| R.V.O.T. | 3.4 | cm. (.90-2.6) | Root Dia | 3.3 | cm. (2.0-3.7) | Ejection Fraction 20-25% (55-70) | Negative |
| IVS (ED) | 0.9 | cm. (.50-1.1) | Cusp Sep | 1.6 | cm. (1.5-2.6) | Frac. Shortening 12% (25-42) | Wall Motion |
| IVS (ES) | 1.3 | cm. | Peak Velocity | 1.5 | m/s (1.0-1.7) | | Mid-Ant |
| LV (ED) | 7.4 | cm. (3.5-5.7) | Peak Gradient | 9.0 | mmHg | Bs-AS N Mid-AS | |
| LV (ES) | 6.5 | cm. | Mean Gradient | 4.8 | mmHg | | <u>"</u> ト"ス |
| LVPW (ED) | 1.1 | cm. (.50-1.1) | LVOT Velocity | | m/s | Mid Cont | |
| LVPW (ES) | 1.2 | cm. | Insuffiency | 0 | m/s | Mid-Septi N | እ () **** |
| LA Diameter | 5.1 | cm. (1.9-4.0) | PHT | | msec. | Bs-Post N | |
| Mitral Valve | | ve | Est Degree | | | Mid-Inf | Inf-Lat |
| D-E Amp | 1.1 | cm. | Tricu | cnid V | alvo | Ap-SeptAp-Lat | - |
| EPSS | 2.5 | cm. (<.5) | Peak Velocity | 62 | m/s (30- 70) | N Ap-In Ap-Ir | ^{nf} Ap-Ant |
| Peak Velocity | .86 | m/s (.60-1.3) | Insufficiency | 3.02 | m/s (150 170) | | ["ሥእ |
| Peak Gradient | 3.0 | mmHg | Ect DVCD (TD) | 5.0 67.8 | mmHa | Mid-Septin Mid-Inf | N Mid-Ant |
| PHT | 41 | msec. | PA Diameter | 52 | cm | N Mid-Lat | |
| Insufficiency | 4.5 | | KA Didiffetei | 5.5 | cm. | BS-Sept N | N N |
| Est. Degree | lild/Mo | d | <u>Pulm</u> | onic V | alve | Bs-Lat Bs-Int | f V V Bs-Ant |
| E/A Ratio | 2.6 | | Peak Velocity | .88 | m/s (.6090) | · · · | $\sim \sim$ |
| IVRT | | | Insuffiency | 0 | m/s | Legend N Normal I Hypokinetic II Hy | perkinetic |

Impression:

1.LVSF:20-25% 2.BAE 3.LVE 4.Mild/Moderate MR 5.Moderate TR 6.Non-reactive IVC 7.No obvious cardiac masses or effusions noted.

> Performed By: Transcribed:

Jack Johnson, RVT 9/8/2010

Report Prepared by PenVasc Vascular Database

Phil White, M.D.





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| Name | Jones, Phil |
|----------|-------------|
| Exam ID | 97338 |
| Exam Dat | 9/8/2010 |

Risk Factors Alcohol Abuse

CABG

Medications

 Med Rec No.
 10831159

 Date of Birth
 4/11/1963
 Age
 47
 Sex
 Male

 Referred By
 Jackson, Hollins
 Jackson, Hollins
 Jackson, Hollins
 Jackson, Hollins

 V. S. History
 AAA aneurysm repair
 PTA; renal or visceral
 Fragmentation
 Second Second

Admission Inpatient Room # Prior Exam: Limited: No

Iliac Duplex Exam

| | | | Velo | cities | Ankle/Toe Pressures | | | | | |
|----------------|----------|------|-----------|----------|---------------------|-----------|----------------|-------|------|-----------|
| | Right | | | Left | | | Location | Press | BI | Waveforms |
| | PSV | % | Waveforms | PSV | % | Waveforms | Right Brachial | 150 | | |
| | (cm/sec) | Inc. | | (cm/sec) | Inc. | | Dor. Pedis | 150 | 1.00 | Normal |
| Aorta | 100 | | Triphasic | | | | Post. Tibial | 150 | 1.00 | Normal |
| Common Iliac | 54 | -46 | Triphasic | 541 | 441 | Stenotic | Left Brachial | 150 | | |
| External Iliac | 100 | 0 | Triphasic | 100 | 0 | Triphasic | Dor. Pedis | 85 | 0.57 | Reduced |
| | | | | | | | Post. Tibial | 85 | 0.57 | Reduced |

Interpretation:

Right: Normal ankle pressure index of the right lower extremity. Normal ankle waveforms of the right lower extremity. Normal triphasic waveforms of the right ankle. No evidence of significant velocity increases of the right lower extremity. Normal Doppler waveforms of the right lower extremity.

Left: Moderately decreased left ankle pressure index consistant with claudication. Biphasic ankle waveforms of the left lower extremity. Moderately abnormal waveforms of the left ankle. Significant velocity increase of the left common iliac artery. Critically abnormal Doppler waveforms of the left common iliac artery.

Impression:

- *Right:* This exam reveals normal perfusion of the right lower extremity. Patent iliac artey.
- *Left:* This exam reveals moderately decreased perfusion of the left lower extremity. Hemodynamically significant stenosis (50 -99%) of the left lower extremity.

Wayne K. Kuning MD Wayner K. Baker M.D.

9/20/2010

Performed By: Transcribed: *Jack Johnson, RVT* 9/8/2010





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Name Jones, Robert 97280 Exam ID Exam Dat 7/9/2010

Risk Factors

Smoke > 2 packs per day

Medications

Reason for Study

V. S. History

Med Rec No. 15190029

Date of Birth 2/28/1953

747.69 Periph vasc. anamoly-other specified site

Age 57 Sex Male

Admission Inpatient Room # ccu Prior Exam: 55 Limited: No

Lower Extremity Arterial Exam

Referred By Jackson, Gretchen (Cardiology)

| | | | Right | Left | | | |
|--------------|-------|-------|-------------------|-------|-------|-------------------|--|
| Location | Press | Ratio | PVR/PPG Waveforms | Press | Ratio | PVR/PPG Waveforms | |
| Brachial | 129 | 1.00 | | 124 | 0.96 | | |
| High Thigh | 53 | 0.41 | Severe | 164 | 1.27 | Normal | |
| Low Thigh | 50 | 0.39 | Severe | 157 | 1.22 | Normal | |
| Calf (POP) | 44 | 0.34 | Severe | 147 | 1.14 | Normal | |
| Dor. Pedis | 40 | 0.31 | Severe | 134 | 1.04 | Normal | |
| Post. Tibial | 37 | 0.29 | Severe | 140 | 1.09 | Normal | |
| Peroneal | 0 | 0.00 | Absent | 138 | 1.07 | Normal | |
| Great Toe | 0 | 0.00 | Non-Pulsatile | 115 | 0.89 | Pulsatile | |

Interpretation:

Right: Severe decrease of the right lower extremity. Moderately abnormal PVR waveforms of the right lower extremity. Non-pulsatile PPG waveform in the right digits.

Left: Moderate decrease of the left high thigh pressure. Normal PVR waveforms of the left lower extremity. Normal PPG waveforms in the left digits.

Impression:

Right: This exam reveals severely decreased perfusion of the right lower extremity. This exam reveals severely decreased perfusion of right lower extremity, noted at the iliac and pedal artery levels. Undetectable digital pressures are noted of the right lower extremity.

Left: This exam reveals normal perfusion of the left lower extremity. This exam reveals normal perfusion of left lower extremity at rest.

Phil White, M.D.

7/14/2010

Performed By: Transcribed:

Scott Abott, RVT 7/9/2010 3:08:38 PM





10580 Wayzata Boulevard, Suite 200 Minnetonka, MN 55305 Phone: 763.475.3388 e-mail: penrad@penrad.com

| Name | Jackson, Peggy |
|----------|----------------|
| Exam ID | 197366 |
| Evam Dat | 4/11/2011 |

Exam Dat 4/11/2011

Risk Factors

Tobacco--quit <10 years ago S/P CABG

Date of Birth 8/16/1955 Age 55 Referred By Baker, Referring V. S. History

Sex Female

Admission Inpatient Room # Prior Exam: Limited: No

Reason for Study

Med Rec No. 477482

443.81 Arterial disease due to diabetes

Medications

Lower Extremity Duplex Exam

| | Velocities | | | | | | | Ankle/Toe Pressures | | | | |
|-------------|------------|-------|-------------------|------|-------|-------------------|----------|---------------------|--------------|-----|-----------|---------|
| | | | Right | Left | | | Location | | Press | BI | Waveforms | |
| Location | PSV | Ratio | Doppler Waveforms | PSV | Ratio | Doppler Waveforms | | Right | Brachial | 147 | | |
| CFA | 74 | | Triphasic | 78 | | Triphasic | | | Dor. Pedis | 159 | 1.05 | Normal |
| PFA | 78 | 1.05 | Triphasic | 101 | 1.29 | Triphasic | | | Post. Tibial | 151 | 1.00 | Normal |
| Prox SFA | 98 | 1.26 | Triphasic | 109 | 1.08 | Triphasic | | | Peroneal | 167 | 1.11 | Normal |
| Mid SFA | 78 | .80 | Triphasic | 78 | .72 | Triphasic | | | Great Toe | | | |
| Distal SFA | 76 | .97 | Triphasic | 98 | 1.26 | Triphasic | I | Left | Brachial | 151 | | |
| Prox POP | 69 | .91 | Triphasic | 698 | 7.12 | Monophasic | | | Dor. Pedis | 85 | 0.56 | Reduced |
| Mid POP | 85 | 1.23 | Triphasic | 45 | .06 | Monophasic | | | Post. Tibial | 96 | 0.64 | Reduced |
| Distal POP | 74 | .87 | Triphasic | 84 | 1.87 | Monophasic | | | Peroneal | 74 | 0.49 | Reduced |
| Post Tibial | 96 | 1.30 | Triphasic | 47 | .56 | Monophasic | | | Great Toe | | | |
| Ant Tibial | 84 | .88 | Triphasic | 84 | 1.79 | Monophasic | | | | | | |

Noninvasive evaluation of the native arterial system by B-mode imaging, color Doppler, and spectral analysis.

Interpretation:

Right: Normal ankle pressure index of the right lower extremity.

Normal ankle waveforms of the right lower extremity. No evidence of significant velocity increases of the right lower extremity. Normal Doppler waveforms of the right lower extremity.

Left: Moderately decreased left ankle pressure index consistant with claudication. Reduced ankle waveforms of the left lower extremity. Significant velocity increase of the left mid/distal superficial femoral artery. Monophasic Doppler waveforms of the left mid/distal superficial femoral, distal superficial femoral, popliteal, posterior tibial and anterior tibial arteries.

Impression:

Right: This exam reveals normal perfusion of the right lower extremity.

Left: This exam reveals moderately decreased perfusion of the left lower extremity. Hemodynamically significant stenosis (75 -99%) of the left lower extremity.

My Sult

Phil White, M.D.

4/21/2011

Performed By: Transcribed: *Jack Johnson, RVT* 4/11/2011





Sex Male

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| Name | Jones, Phi | | | | | |
|----------|------------|--|--|--|--|--|
| Exam ID | 97341 | | | | | |
| Exam Dat | 9/9/2010 | | | | | |

Risk Factors

Alcohol Abuse CABG Medications

Med Rec No. 10831159

Date of Birth 4/11/1963 Age 47

Referred By Jackson, Hollins

V. S. History

AAA aneurysm repair PTA; renal or visceral Admission Inpatient Room # Prior Exam: Limited: No

Reason for Study

Right 747.69 Periph vasc. anamoly-other specified site

Left 440.31 Atherosclerosis of autologous Graft

Lower Extremity Arterial Exam with Exercise

| | Doppler Waveforms | | | Right | | | Le | eft | Immediate Post-Exercise | | | |
|-----|-------------------|-----------|--------------|-------|-------|-----------|-------|-------|-------------------------|---------|-----------|---|
| | Right | Left | Location | Press | Ratio | PVR/PPG | Press | Ratio | PVR/PPG | | Pressures | _ |
| CFA | Triphasic | Triphasic | | | | Waveforms | | | Waveforms | Brach | Ankle | ABI |
| SFA | Triphasic | Triphasic | Brachial | 141 | 0.97 | | 145 | 1.00 | | | Right | |
| POP | Triphasic | Triphasic | Thigh | 154 | 1.06 | Normal | 161 | 1.11 | Normal | 170 | DP 180 | 1.06 |
| DPA | Triphasic | Triphasic | Calf (POP) | 151 | 1.04 | Normal | 154 | 1.06 | Normal | | PT 180 | 1.06 |
| ΡΤΑ | Triphasic | Triphasic | Dor. Pedis | 147 | 1.01 | Normal | 151 | 1.04 | Normal | | Left | |
| L I | • | • | Post. Tibial | | | | | | | 170 | DP 90 | 0.53 |
| | | | Great Toe | | | | | | | | PT 90 | 0.53 |
| | | | 2nd Toe | | | | | | | Recover | v Time | 5 min |
| | | | 3rd Toe | | | | | | | Time | Walked | 5 min |
| | | | 4th Toe | | | | | | | Dist | Walked | , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| | | | 5th Toe | | | | | | | Dioti | Tuncu | |

Interpretation:

- *Right:* Normal ankle pressure index of the right lower extremity. No evidence of segmental pressure decreases of the right lower extremity. Normal PVR waveforms of the right lower extremity.
- *Left:* Normal ankle pressure index of the left lower extremity. No evidence of segmental pressure decreases of the left lower extremity. Normal PVR waveforms of the left lower extremity.

Impression:

- *Right:* This exam reveals normal perfusion of the right lower extremity. This exam reveals normal perfusion of right lower extremity at rest. No evidence of decreased right post execise ankle pressure index.
- *Left:* This exam reveals normal perfusion of the left lower extremity. This exam reveals normal perfusion of left lower extremity at rest. Signficantly decreased left post exercise ankle pressure index.

Wayne K. Frusing M. Wayne K. Baker M.D.

9/20/2010

Performed By: Transcribed: *Jack Johnson, RVT 9/9/2010*

PenVasc



PenRad Technologies, Inc.

10580 Wayzata Boulevard, Suite 200 Minnetonka, MN 55305 Phone: 763.475.3388 e-mail: penrad@penrad.com

| Name | Smith, Mary Ellen | | | | | |
|---|--|------------------|---------------|---------------|------------|----------------------|
| Exam ID | 93298 | Med Rec No. | 16938651 | | | |
| Exam Dat | 4/5/2010 | Date of Birth 9 | 9/11/1938 | Age 71 | Sex Female | |
| | | Referred By J | lackson, Kimb | erley J. | | Admission Outpatient |
| Risk Factors | | V. S. History | | Room # | | |
| Carotid disease | e | | | | | Prior Exam: |
| HTN, DM, wt le Rt CEA 8/25/0 Smoking (1/6 bilateral renal, | oss, abd pain, claudication 9 50) celiac and SMA endartectomy | Reason for Study | V | | | Limited: Yes |

Medications

Mesenteric Arteries Duplex Evaluation

| Artery Locations | PSV | EDV |
|------------------------------|-----|-----|
| Suprarenal Aorta | 54 | 10 |
| Proximal Celiac | 162 | 22 |
| Distal Celiac | 141 | 16 |
| Proximal Hepatic | 128 | 25 |
| Proximal Splenic | 501 | 141 |
| Proximal Superior Mesenteric | 79 | 9 |
| Mid Superior Mesenteric | 92 | 10 |
| Distal Superior Mesenteric | 193 | 20 |
| Proximal Inferior Mesenteric | 121 | 12 |

Interpretation:

Evaluation reveals increased velocities of the proximal splenic artery.

Impression:

Hemodynamically significant disease (70-99%) of the proximal splenic artery.

Wayne K. Kuring MD Wayner K. Baker M.D.

4/21/2010

Performed By: Transcribed: *Jack Johnson, RVT* 4/5/2010 9:19:05 AM





10580 Wayzata Boulevard, Suite 200 Minnetonka, MN 55305 Phone: 763.475.3388 e-mail: penrad@penrad.com

| NameJoiExam ID973Exam Dat972Risk Factors972Alcohol AbuseCABGMedications1 | nes, Phil 350 22/2010 | Med Rec No. 10831 Date of Birth 4/11/1 Referred By Jackson V. S. History AAA aneurysm r PTA; renal or vis Reason for Study | 159 963 Age 47 Sex Male n, Hollins ^{repair} sceral | Admission Outpatient Room # Prior Exam: Limited: No |
|--|--|--|---|---|
| | | Outpatient / | Assessment | |
| Pain Rating: | O No Pain |) (****) (***************************** | 6 A Lot Very Bad | Pediatric or Developmentally Delayed |
| If a numeric valu Location: Description: Duration: | ie other than zero: Left Calf | | What makes it better: What makes it worse: | |
| Falling Risk: Does Patient s Is patient usin Has patient ha Intervention: | Y N show any outward appearance of ag any ambulatory devices (crut ad a fall in the last 6 months? If yes to any of the fall risk qu then was a chair or wheelcha | of being at risk for a fall? ches, canes, etc.)? estions, air offered? | ✓ Y N Any safety of ✓ Y N If yes, r ✓ Y N If yes, r ✓ Y N N ✓ Y N Patient Refused | olence Screening: concern suspected? |
| Education: | | | | |
| PerfArtDise Signs ar Risk Fac Interver Diagnos | ease PerfV nd Symptoms Si ctors Ri ntions In stic Testing Di | 'enousDisease gn and Symptoms sk Factors iterventions iagnostic Testing | ExtCarotidDisease Signs and Symptoms Risk Factors Interventions Diagnostic Testing | VisceralVenousDisease Sign and Symptoms Risk Factors Interventions Diagnostic Testing |
| Barriers to Edu Disabilit | ucation: 🗹 Y 🗌 N ge 🗌 Culture ty 🔽 Emotional | ✓ Psychological ☐ Sight | Barriers to Ec Pamph Demor | ducation Intervention: nlets nstration |
| Hearing | g Religion | Emotional Issues | Usitor | /Family Member Assistance |

Phil White, M.D.

Performed By: Transcribed: **Jack Johnson, RVT** 9/22/2010

PenVasc



PenRad Technologies, Inc.

10580 Wayzata Boulevard, Suite 200 Minnetonka, MN 55305 Phone: 763.475.3388 e-mail: penrad@penrad.com

| Name | Jones, Theodore |
|----------|-----------------|
| Exam ID | 96963 |
| Exam Dat | 7/1/2010 |

Risk Factors

Brain tumor removed in 2000. h/o prostate CA Hyperlipdemia Hypertension Smoking (2 ppd x 20 y. Quit '97) BLE legs feel heavy

Medications

Med Rec No.17123523Date of Birth3/8/1932Age78SexMaleReferred ByBaker, George W.V. S. History

Admission Outpatient Room # DOC Prior Exam: Limited: No

Reason for Study

Penile Blood Flow Evaluation

| Nocturnal Erection: | | A | nkle/Toe | Penile Pressures | | | | | | |
|---------------------|-------|--------------|----------|------------------|-----------|-------|------|-------|-----|--|
| Partial Erection: | L | ocation | Press | BI | Waveforms | Rig | jht | Left | | |
| | Right | Brachial | 134 | | | Press | PBI | Press | PBI | |
| Penile Pulse Volume | | Dor. Pedis | 151 | 1.12 | Normal | 151 | 1.12 | | | |
| Recording Waveform | | Post. Tibial | 151 | 1.12 | Normal | | | | | |
| Triphasic | | Great Toe | 127 | 0.94 | Pulsatile | | | | | |
| | Left | Brachial | 135 | | | | | | | |
| | | Dor. Pedis | 148 | 1.10 | Normal | | | | | |
| | | Post. Tibial | 141 | 1.04 | Normal | | | | | |
| | | Great Toe | 121 | 0.90 | Pulsatile | | | | | |

Interpretation:

Right: Normal ankle pressure index of the right lower extremity. Normal penile pressure indicies of the right lower extremity. Normal penile pulse volume recording waveform. Normal PPG waveforms in the right great toe.

Left: Normal ankle pressure index of the left lower extremity. Normal PPG waveforms in the left great toe.

Impression:

Right: This exam reveals normal perfusion of the right lower extremity.

Left: This exam reveals normal perfusion of the left lower extremity.

Plux Sulto

Phil White, M.D.

7/21/2010

Performed By: Transcribed: **Randy Jones, RVT** 7/1/2010 3:14:52 PM

PenVasc



PenRad Technologies, Inc.

10580 Wayzata Boulevard, Suite 200 Minnetonka, MN 55305 Phone: 763.475.3388 e-mail: penrad@penrad.com

Name Jones, Gloria Anita Exam ID 97313

Exam Dat 7/12/2010

Risk Factors

Hypertension Mitral valve problem Severe MVA '03 (lacerations left kidney) Left LE pain

Medications

Med Rec No. 19657429 Date of Birth 9/8/1935 Age 74 74 Referred By Jackson, Kimberley J.

V. S. History

Reason for Study

585 Chronic renal failure

Sex Female

Admission Outpatient Room # DOC Prior Exam: 4/27/2009 Limited: No

Duplex Evaluation of Renal Arteries

| Abd Aorta Velocity | | | | Rig | ght | | | | Le | eft | |
|--------------------|-------------------|------|-----|-------|-----------|---------------------|-----|-----|-------|-----------|---------------------|
| 68 | | PSV | EDV | Anale | R/A Ratio | Acc Time (Delay) | PSV | EDV | Anale | R/A Ratio | Acc Time (Delay) |
| Brachial BP | Renal Artery Prox | 75 | 25 | 24 | | | 86 | 29 | 58 | | , |
| 132/56 | Mid | 214 | 64 | 50 | 3.15 | | 125 | 48 | 60 | 1.84 | |
| | Distal | 100 | 31 | 44 | | | | | 60 | | |
| Transplant | Cortex | 63 | 23 | 0 | RI: 0.63 | 45 | | | 60 | | 0 |
| | Medulla | 65 | 20 | 0 | RI: 0.69 | 50 | | | 60 | | 0 |
| | Kidney Length | 9.32 | cm. | | | | | cm. | | | |

Interpretation:

Right: No evidence of increased velocities of the right renal artery is noted. Renal length is within normal limits for the right kidney. Increased renovascular resistance is noted of the right kidney.

Left: No evidence of increased velocities of the left renal artery is noted.

Impression:

- *Right:* No evidence of renal artery occlusive disease of the right renal artery with normal kidney size.
- *Left:* No evidence of renal artery occlusive disease of the left renal artery with normal kidney size.

Wayne K. Fining M. Wayner K. Baker M.D.

7/21/2010

Performed By: Transcribed: **Peter Brown, RVT** 7/12/2010 10:44:55 AM



Jackson Peggy

PenRad Technologies, Inc.

10580 Wayzata Boulevard, Suite 200 Minnetonka, MN 55305 Phone: 763.475.3388 e-mail: penrad@penrad.com

| | Juckson, i cggy | | |
|---------------------|-----------------|---|---------------------|
| Exam ID | 197367 | Med Rec No. 477482 | |
| Exam Dat | 4/11/2011 | Date of Birth 8/16/1955 Age 55 Sex Female | |
| | | Referred By Baker, Referring | Admission Inpatient |
| Risk Factors | 5 | V. S. History | Room # |
| Tobaccoquit | : <10 years ago | AAA aneurysm repair | Prior Exam: |
| S/P CABG | | Reason for Study | Limited: No |
| Medications | | 436 CVA | |
| | | | |

Vascular Screening

| Right B | Blood Press | ure: 13 | 34 Left Blo | ood Pressure | : 130 | | | | | | |
|---------|-------------|------------|-------------|--------------|-------|----------------|-----------|------------------|----------|--|--|
| | Ar | terial Sci | reening | | | Carotid Screen | ing | Aortic Screening | | | |
| | Ankle | <u>ABI</u> | Great Toe | <u>TBI</u> | | ICA Velocity | Pathology | | | | |
| Right | 154 | 1.15 | | | Right | 104 cm/sec | No | Aortic Diameter | 4.89 cm. | | |
| Left | 114 | 0.85 | | | Left | 365 cm/sec | Yes | | | | |

Noninvasive screening evaluation of the carotid, aorta, and lower extremity arteries. Examination includes B-mode imaging, color doppler, spectral analysis, continuous wave Doppler, volume pulse waveforms and ankle brachial indices.

Impression:

Name

- *Arterial:* Presence of disease ankle/brachial index of <.95. Recommend complete diagnostic examination within 6 months.
- *Carotid:* Presence of disease of overall significance >50% diameter reduction defined by the presence of pathology and a peak systolic velocity of >125 cm/sec with documented post stenotic turbulence. Recommend immediate diagnostic examination and vascular surgeon referral within 30 days.
- *Aortic:* Presence of aneurysmal disease maximum diameter of greater than 3.0 cm. Recommend immediate referral to vascular surgeon.

-SWP:6 4/21/2011 anno James S White, M.D.

Performed By: Transcribed: Jack Johnson, RVT 4/11/2011





443.89 Cyanosis/Pain/Numbness/Tingling LE

Age 18 Sex Female

10580 Wayzata Boulevard, Suite 200 Minnetonka, MN 55305 Phone: 763.475.3388 e-mail: penrad@penrad.com

Admission Outpatient

Room # DOC

Prior Exam: Limited: No

Name Jones, Amber Jean

94079 Exam ID Exam Dat 4/22/2010

Risk Factors

right arm numbness and coldness w/ migraine Migraines

Medications

Thoracic Outlet Examination Waveforms

Referred By Baker, Patrick (Neurology)

Med Rec No. 19532790

Date of Birth 12/12/1991

V. S. History

Reason for Study

Right Location 2nd Digit Left Location 2nd Digit Triphasic Neutral Position Triphasic Triphasic Supine Triphasic Triphasic Sitting Triphasic Triphasic Arms Straight Out @ 90° Triphasic Triphasic Arms Angled Up @ 135° Triphasic Triphasic Arms Straight Up @ 180° Monophasic Triphasic Arms Back; Chest Out Triphasic Triphasic Other Triphasic

Interpretation:

Right: Waveform analysis reveals normal waveforms of the right upper extremity at rest and with positional changes.

Left: Waveform analysis reveals significant attenuation of the left upper extremity.

Impression:

Right: No evidence of thoracic outlet compression syndrome of the right upper extremity.

Left: Thoracic outlet syndrome is noted of the upper extremity as demonstrated in the arms straight up @ 180° position .

Phil White, M.D.

4/23/2010

Performed By: Transcribed:

Wendy VanDelay, RDMS, RVT 4/22/2010 2:06:52 PM





747.69 Periph vasc. anamoly-other specified site

Age 55

Sex Female

10580 Wayzata Boulevard, Suite 200 Minnetonka, MN 55305 Phone: 763.475.3388 e-mail: penrad@penrad.com

| Name | Jackson, Peggy |
|----------|----------------|
| Exam ID | 197364 |
| Exam Dat | 4/11/2011 |

Risk Factors

Tobacco--quit <10 years ago S/P CABG

Referred By Baker, Robert V. S. History

Med Rec No. 477482 Date of Birth 8/16/1955

Reason for Study

Admission Inpatient Room # Prior Exam: Limited: No

Medications

Upper Extremity Arterial Exam

| | | Extremity Pressures | | | | | | | | | | | | | |
|----------|-------|---------------------|-------------------|-------|------|-------------------|--|--|--|--|--|--|--|--|--|
| | | | Right | Left | | | | | | | | | | | |
| Location | Press | BI | PVR/PPG Waveforms | Press | BI | PVR/PPG Waveforms | | | | | | | | | |
| Brachial | 150 | | | 100 | | | | | | | | | | | |
| Radial | 139 | 0.93 | Pulsatile | 84 | 0.56 | Reduced | | | | | | | | | |
| Ulnar | 148 | 0.99 | Pulsatile | 78 | 0.52 | Reduced | | | | | | | | | |
| Thumb | 114 | 0.76 | Pulsatile | 54 | 0.36 | Reduced | | | | | | | | | |
| Index | 101 | 0.67 | Pulsatile | 57 | 0.38 | Reduced | | | | | | | | | |
| Middle | 104 | 0.69 | Pulsatile | 47 | 0.31 | Reduced | | | | | | | | | |
| Ring | 115 | 0.77 | Pulsatile | 51 | 0.34 | Reduced | | | | | | | | | |
| Small | 103 | 0.69 | Pulsatile | 50 | 0.33 | Reduced | | | | | | | | | |

Noninvasive arterial exam of the upper extremities including continuous wave Doppler waveforms, volume pulse waveforms, segmental pressures, and ankle brachial indices. Testing includes exercise and/or digit pressures/waveforms when clinically indicated.

Interpretation:

Right: No evidence of segmental pressure decreases of the right upper extremity. Moderately decreased right finger pressure index. Normal PVR waveforms of the right upper extremity. Pulsatile waveform in the right fingers.

Left: Severe decrease of the left radial and ulnar pressures. Severely decreased left finger pressure index. Mildly abnormal PVR waveforms of the left upper extremity. Reduced waveform in the left fingers. The left brachial pressure is significantly lower than the right side.

Impression:

Right: This exam reveals normal perfusion of right upper extremity. Moderately decreased digital pressures are noted of the right upper extremity.

Left: This exam reveals mildly decreased perfusion of left upper extremity, noted at the distal brachial and subclavian or brachiocephalic artery levels. Severely decreased digital pressures are noted of the left upper extremity.

My Sulto

Phil White, M.D.

4/21/2011

Performed By: Transcribed: *Jack Johnson, RVT* 4/11/2011





10580 Wayzata Boulevard, Suite 200 Minnetonka, MN 55305 Phone: 763.475.3388 e-mail: penrad@penrad.com

Name Roberts, Darrell Thomas

 Exam ID
 97207

 Exam Dat
 7/8/2010

Risk Factors

evaluate for adequate veins Deaf/mute pre-op possible angioplasty/stenting It leg

Medications

Date of Birth1/15/1944Age66SexMaleReferred ByJackson, Randolph L. (SUR)V. S. History

Admission Inpatient Room # B509 Prior Exam: Limited: No

Legend
 Normal
 Reduced
 Absent
 Inconclusive
 Not Applicable

Reason for Study

Med Rec No. 13686243

Lower Extremity Duplex Vein Mapping

| | Great Sa | phenous | Small Sa | phenous |
|---------------------|--------------|---------|----------|---------|
| | Right | Left | Right | Left |
| Proximal Thigh | 4.8 | 3.7 | | |
| Mid Thigh | 3.8 | 4.0 | | |
| Distal Thigh | 3.8 | 2.2 | | |
| At Knee | 4.2 | 1.7 | | |
| Proximal Calf | 5.2 | | | |
| Mid Calf | 2.7 | | | |
| Distal Calf | 2.2 | | | |
| At Ankle | 2.4 | | | |
| Compressibility | + | + | | |
| Length: | Groin to ank | de | | |
| cm. of Usable Vein: | <u>10</u> | | | |

Noninvasive evaluation of the superficial veins to be utilized for bypass graft conduit. Includes B-mode imaging, representative diameter measurements, and compression maneuvers. All measurements in centimeters.

Duplex Analysis:

The right GSV is adequate size (2.4-4.8mm) from ankle to the groin. Location was marked on right leg. The left GSV is adequate size (3.7-4.0mm) from groin to mid thigh then appears to diminish in size (<2.2mm) from distal thigh towards the ankle. Location was marked on left leg.

Impression:

Bilateral greater saphenous veins appear patent. Right greater saphenous vein appears adequate in size for surgical stenting. Left greater saphenous vein does not appear to be adequate size for stenting.

5 WR:6 7/9/2010 James S White, M.D.

Performed By: Transcribed: *Wendy VanDelay, RDMS, RVT* 7/8/2010 1:48:10 PM





10580 Wayzata Boulevard, Suite 200 Minnetonka, MN 55305 Phone: 763.475.3388 e-mail: penrad@penrad.com

| Name | Jones, Phil |
|----------|-------------|
| Exam ID | 97348 |
| Exam Dat | 9/22/2010 |

Risk Factors Alcohol Abuse CABG

Medications

Med Rec No. 10831159 Date of Birth 4/11/1963 Age 47 Sex Male Referred By Jackson, Hollins V. S. History AAA aneurysm repair PTA; renal or visceral

Reason for Study

782.3 Edema

Admission Inpatient Room # Prior Exam:

Limited: No

Lower Extremity Venous Duplex Exam

| | CF | V | SF | Jx | PF | =V | SF | ۶V | Po | эр | P | ٢V | GSV | 1-5 | GSV | 6-8 | LS | SV | Per | on | Gas | troc | сC | FV | Legend |
|-----------------|----|---|----|----|----|----|----|----|----|----|---|----|-----|-----|-----|-----|----|----|-----|----|-----|------|----|----|----------------|
| | R | L | R | L | R | L | R | L | R | L | R | L | R | L | R | L | R | L | R | L | R | L | R | L | + Normal |
| Compressibility | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | - Reduced |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | Ø Absent |
| Spontaneity | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | I Inconclusive |
| Phasicity | | ÷ | _ | ÷ | | ÷ | | ÷ | | ÷ | | ÷ | | ÷ | | ÷ | | | | ÷ | | ÷ | ÷ | ÷ | A Acute |
| FlidSicity | т | т | т | т | т | т | т | т | т | т | т | т | т | т | т | т | T | т | т | т | т | т | т | т | C Chronic |
| Augmentation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | Not Applicable |
| Competency | + | + | Ø | + | + | + | + | + | + | + | + | + | Ø | + | Ø | + | + | + | + | + | + | + | + | + | |

Interpretation:

Right: Normal compressibility of the deep veins in the right lower extremity. No evidence of venous obstruction of the right lower extremity. Marked reflux noted in the right saphenofemoral junction, greater saphenous (zone 1-5) and greater saphenous (zone 6-8) veins.

Left: Normal compressibility of the deep veins in the left lower extremity. No evidence of venous obstruction of the left lower extremity. No evidence of valvular incompetence of the left lower extremity.

Impression:

- *Right:* No evidence of deep vein thrombosis or venous obstruction in the right lower extremity. Severe valvular incompetence (chronic venous insufficiency) of the right saphenofemoral junction, greater saphenous (zone 1-5) and greater saphenous (zone 6-8) veins.
- *Left:* No evidence of deep vein thrombosis or venous obstruction in the left lower extremity. No evidence of valvular incompetence (chronic venous insufficiency) of the left lower extremity.

Note: Impression given reflects only those areas adequately visualized. Limitation of exam may include body habitus, inability to perform compression maneuvers and /or imaging artifacts. The pelvis and abdominal veins are not evaluated. Full leg edema may be a reflection of pelvic or abdominal vein obstruction. Symptoms may indicate the need for further diagnostic testing.

WP:6 9/25/2010 James S White, M.D.

Performed By: Transcribed:

Jack Johnson, RVT 9/22/2010





10580 Wayzata Boulevard, Suite 200 Minnetonka, MN 55305 Phone: 763.475.3388 e-mail: penrad@penrad.com

Name Roberts, David Buckner, Jr.

| Exam ID 973 | 305 | Med Rec No. | 17913805 | | | | | |
|----------------------|-----------------------------|-----------------|---------------|---------------|-----|------|-------------|------------|
| Exam Dat 7/1 | 2/2010 | Date of Birth | 5/12/1961 | Age 49 | Sex | Male | | |
| | | Referred By | Baker, George | W. | | | Admission | Outpatient |
| Risk Factors | | V. S. History | | | | | Room # | |
| AO bi fem | | | | | | I | Prior Exam: | |
| Hypertension | | Reason for Stud | ly | | | L | Limited: No | |
| It to rt fem-fem (rt | t limb of aobifem occluded) | 782.3 | Edema | | | | | |

previous DVT s/p left neph 6/17/10, c/o left leg pain x 4 days,

Medications

Left Lower Extremity Venous Duplex Exam

| Left | CFV | SFJx | PFV | SFV | Рор | PTV | GSV 1- | GSV 6- | LSV | Peron | Gastroc | Legend |
|-----------------|-----|------|--------|-----|-----|--------|--------|--------|--------|-------|---------|----------------|
| | | | | | | | 5 | 8 | | | | + Normal |
| Compressibility | + | + | + | Ø | Ø | + | + | + | + | + | Ø | - Reduced |
| Thrombosis | | | | Α | Α | | - | | | | Α | Ø Absent |
| Spontaneity | + | + | + | ø | ø | + | + | + | + | + | ø | I Inconclusive |
| Phasicity | | · · | · - | ø | ø | · - | | · - | · - | · · | ã | A Acute |
| FlidSicity | т | т | т | ý | ý | т | т | т | т | т | ý | C Chronic |
| Augmentation | + | + | + | Ø | Ø | + | + | + | + | + | Ø | Not Applicable |
| Competency | + | + | + | | | + | + | + | + | + | | FF |

Interpretation:

Acute echoes throughout left SFV and dilated popliteal veins with absent Doppler flow.

Impression:

Acute superficial femoral and popliteal DVT.

Note: Impression given reflects only those areas adequately visualized. Limitation of exam may include body habitus, inability to perform compression maneuvers and /or imaging artifacts. The pelvis and abdominal veins are not evaluated. Full leg edema may be a reflection of pelvic or abdominal vein obstruction. Symptoms may indicate the need for further diagnostic testing.

Phil White, M.D.

7/13/2010

Performed By: Transcribed:

Scott Abott, RVT 7/12/2010 10:54:57 AM





10580 Wayzata Boulevard, Suite 200 Minnetonka, MN 55305 Phone: 763.475.3388 e-mail: penrad@penrad.com

Name Jones, Ashley Gail Exam ID 197374

Exam Dat 4/21/2011

Risk Factors

Lt leg pain and swelling Recent left knee surgery

Medications

 Med Rec No.
 13612514

 Date of Birth
 1/16/1986
 Age
 25

 Referred By
 Baker, Andrew
 V.

 V. S. History
 Value
 Value
 Value

782.3 Edema

Sex Female

Admission Inpatient Room # Prior Exam: Limited: No

Lower Extremity Venous Duplex Exam

| | CFV | | CFV | | CFV SFJx | | PFV | | SFV | | Рор | | PTV | | GSV 1-5 | | GSV 6-8 | | LSV | | Peron | | Gastroc | | Legend | |
|-----------------|-----|---|-----|---|----------|---|-----|---|-----|---|-----|---|-----|---|---------|---|---------|---|-----|---|-------|---|----------------|--|--------|--|
| | R | L | R | L | R | L | R | L | R | L | R | L | R | L | R | L | R | L | R | L | R | L | + Normal | | | |
| Compressibility | + | + | + | + | + | + | + | + | Ø | + | Ø | + | + | + | + | + | + | + | + | + | + | + | - Reduced | | | |
| Thrombosis | | | | | | | | | Α | | Α | | | | | | | | | | | | Ø Absent | | | |
| Spontaneity | + | + | + | + | + | + | + | + | ø | + | Ø | + | + | + | + | + | + | + | + | + | + | + | I Inconclusive | | | |
| Phasicity | + | + | + | + | + | + | + | + | ø | + | Ø | + | + | + | + | + | + | + | + | + | + | + | A Acute | | | |
| Augmentation | + | + | + | + | + | + | + | + | ø | + | ø | + | + | + | + | + | + | + | + | + | + | + | Not Applicable | | | |
| Competency | + | + | + | + | + | + | + | + | | + | | + | + | + | + | + | + | + | + | + | + | + | | | | |

Noninvasive venous examination of the lower extremities using duplex ultrasound.

Interpretation:

Right: Incompressible right popliteal and posterior tibial veins.

No spontaneous or augmented venous flow in the right popliteal and posterior tibial veins. No evidence of valvular incompetence of the right lower extremity.

Reason for Study

- *Left:* Normal compressibility of the deep veins in the left lower extremity. No evidence of venous obstruction of the left lower extremity.
 - No evidence of valvular incompetence of the left lower extremity.

Impression:

- *Right:* Totally occluding acute deep vein thrombosis thrombosis of the right popliteal and posterior tibial veins with severe reduction of the venous return.
 - No evidence of valvular incompetence (chronic venous insufficiency) of the right lower extremity.
- *Left:* No evidence of deep vein thrombosis or venous obstruction in the left lower extremity. No evidence of valvular incompetence (chronic venous insufficiency) of the left lower extremity.

SWR:6 4/21/2011 James S White, M.D.

Performed By: Ja Transcribed: 4/

Jack Johnson, RVT 4/21/2011





10580 Wayzata Boulevard, Suite 200 Minnetonka, MN 55305 Phone: 763.475.3388 e-mail: penrad@penrad.com

| Name | Smith, Linda | | | | | | |
|---------------------|--------------|----------------|-------------|---------------|------------|-------------|-----------|
| Exam ID | 197373 | Med Rec No. | 13777425 | | | | |
| Exam Dat | 4/21/2011 | Date of Birth | 4/4/1951 | Age 60 | Sex Female | e | |
| | | Referred By | Smith, Paul | | | Admission | Inpatient |
| Risk Factors | 5 | V. S. History | | | | Room # | |
| adm with ARF | , SOB | | | | | Prior Exam: | |
| morbin obesit | v. HTN. DM | Peacon for Stu | dv | | | Limited: No | |

Reason for Study

747.69 Periph vasc. anamoly-other specified site

Medications

morbin obesity, HTN, DM

Visceral Vascular Duplex Evaluation

| | | | Pi | re-prandial | Post-prandial | | | | | | | | | | |
|------------------|------|----------------------------------|----|-------------|---------------|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|
| | PS\ | PSV EDV Angle Direction Diameter | | | | 10 mins | | 20 mins | | 30 mins | | 40 mins | | 50 mins | |
| Supraceliac Aort | a 62 | 30 | | | | PSV | EDV |
| Celia | c 57 | 12 | 60 | Toward | | 59 | 14 | | | | | | | | |
| Proximal SM | A 64 | 15 | 60 | Toward | | 475 | 200 | | | | | | | | |
| Mid SM | 74 م | 15 | 60 | Toward | | 200 | 100 | | | | | | | | |
| Distal SM | 54 | 16 | 60 | Toward | | 200 | 75 | | | | | | | | |

Interpretation:

Right: Pre-prandial evaluation reveals no evidence of increased velocities of the visceral vascular system. Post-prandial evaluation reveals significantly increased velocities of the proximal superior mesentaric, mid superior mesentaric and distal superior mesentaric arteries.

Impression:

Right: Occlusive disease of the proximal superior mesentaric, mid superior mesentaric and distal superior mesentaric arteries is noted.

Phil White, M.D.

4/21/2011

Performed By: Transcribed:

Jack Johnson, RVT 4/21/2011