VUMC Adult Hospital
1211 Medical Center Drive
Nashville TN 37232

Beyer, Elizabeth
MRN: 046405923, DOB: 3/30/1975, Sex: F
Visit date: 10/11/2018

10/11/2018 - Office Visit in Vanderbilt Heart

Outpatient Visit Notes

Progress Notes by Cyndya Adriana Shibao Miyasato, MD at 10/11/2018 12:45 PM

Autonomic Clinic Note

DATE OF SERVICE: 10/11/2018

PATIENT: Elizabeth Beyer
DOB: 3/30/1975
MRN: 046405923

Subjective
Reason for Clinic Visit:

Elizabeth Beyer is a 43 y.o. female with a history of generalized anxiety disorder, RLS, insomnia, chronic nausea, hypotension, sick sinus syndrome (pacemaker) and orthostatic intolerance. She is here today for evaluation and management of possible autonomic dysfunction. The history is as follow:
1) first syncopal spell occurred when she was 4 years old, she continue to faint throughout as teenager. She was found in multiple occasions to have low blood pressure, however orthostatic vital signs were never obtained. During her pregnancy (only one child), she developed severe hypotension that require surgical care.
2) she has history of urinary retention, she has to strain to urinate.
3) she has heat intolerance.
4) Denied any motor symptoms, although sometimes she shakes when her blood pressure is low.

She currently takes northera and fludrocortisone for her hypotension. She has been on midodrine and mestinon in the past.

Review of Systems
Constitutional: Positive for activity change and fatigue.
HENT: Negative.
Eyes: Negative.
Respiratory: Negative.
Cardiovascular: Negative.
Gastrointestinal: Positive for constipation.
Endocrine: Positive for heat intolerance.
Genitourinary: Positive for decreased urine volume and difficulty urinating **(retention)**.
Musculoskeletal: Positive for gait problem **(when her BP is low)**.
Skin: Negative.
Psychiatric/Behavioral: Positive for confusion and decreased concentration.

Problem List:

Problem List

Circulatory
Autonomic orthostatic hypotension
Overview Signed 10/16/2018 10:30 AM by Cyndya Adriana Shibao, MD
Chronic orthostatic hypotension, which is severe and even caused supine hypotension

-Sick sinus syndrome?, s/p placement of pacemaker

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Outpatient Visit Notes (continued)

-Generalized anxiety disorder
-Insomnia
-ASD s/p repaired

Allergies:
Patient has no known allergies.

Medications:
Outpatient Encounter Prescriptions as of 10/11/2018

Medication	Sig
• aspirin 81 mg enteric coated tablet	Take 81 mg by mouth daily.
• droxidopa (NORTHERA) 300 mg capsule	Take 300 mg by mouth 3 (three) times a day.
• fludrocortisone (FLORINEF) 0.1 mg tablet	Take 0.1 mg by mouth 2 (two) times a day.
• FLUoxetine (PROzac) 40 mg capsule	Take 40 mg by mouth daily.
• LORazepam (ATIVAN) 2 mg tablet	Take 2 mg by mouth as needed.
• omeprazole (PriLOSEC) 20 mg capsule	Take 20 mg by mouth daily.
• ondansetron (ZOFRAN) 4 mg tablet	Take 4 mg by mouth as needed for nausea or vomiting.
• droxidopa (NORTHERA) 100 mg capsule capsule	Take 1 capsule (100 mg total) by mouth 3 (three) times a day. Take 1 capsules with 300 mg tab x 2 day. Take 2 capsules with 300 mg capsule x 2 day
• [DISCONTINUED] droxidopa 300 mg capsule	Take 300 mg by mouth 3 (three) times a day for 3 doses.

No facility-administered encounter medications on file as of 10/11/2018.

Family History:
Family History

Problem	Relation	Age of Onset
• Heart disease	Mother	
• Stroke	Mother	
• Arthritis	Mother	
• Heart disease	Father	
• Gastroesophageal Reflux	Father	

Social History:
Social History

Social History	
• Marital status:	Married
Spouse name:	N/A
• Number of children:	N/A
• Years of education:	N/A

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10/11/2018 - Office Visit in Vanderbilt Heart (continued)

Outpatient Visit Notes (continued)

Occupational History
- Not on file.

Social History Main Topics

• Smoking status:	Not on file
• Smokeless tobacco:	Not on file
• Alcohol use	Not on file
• Drug use:	Unknown
• Sexual activity:	Not on file

Other Topics — Concern
- Not on file

Social History Narrative
- No narrative on file

Orthostatic vital signs
Supine BP: 75/47 HR 48
Upright BP:32/22 HR78

Objective Physical Exam
Constitutional: She is oriented to person, place, and time. She appears well-developed and well-nourished.
HENT:
Head: Normocephalic.
High arch palate
Eyes: Pupils are equal, round, and reactive to light.
Sluggish pupillary reaction to light. No ptosis
Neck: Normal range of motion. No tracheal deviation present. No thyromegaly present.
Cardiovascular: Normal rate, regular rhythm, normal heart sounds and intact distal pulses. Exam reveals no friction rub.
No murmur heard.
Pulmonary/Chest: Effort normal and breath sounds normal. No respiratory distress. She has no wheezes.
Abdominal: Soft. Bowel sounds are normal. She exhibits no distension. There is no tenderness.
Musculoskeletal: Normal range of motion. She exhibits no edema or deformity.
Neurological: She is alert and oriented to person, place, and time. She displays normal reflexes. No cranial nerve deficit or sensory deficit. She exhibits normal muscle tone. Coordination normal.
Psychiatric: She has a normal mood and affect.

AFT Review: Abnormal, severe autonomic failure. Baseline hypotension.

Assessment
Assessment and Plan:
Autonomic orthostatic hypotension
Autonomic function test showed severe autonomic failure with both sympathetic and parasympathetic compromise causing neurogenic orthostatic hypotension.

Neurogenic OH can present as a primary neurodegenerative disorder or secondary to amyloid, paraneoplastic syndrome. I have ordered immunoelectrophoresis of serum and urine to rule out monoclonal gammopathies, and an antibody panel to exclude known autoimmune autonomic neuropathies. Furthermore, OH can be secondary to

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Outpatient Visit Notes (continued)

surrepticious use of clonidine or tizanidine. I have reviewed her list of medications and I did not notice them in the prescription list. However it would be important to obtain a screening for clonidine. Patients with autonomic failure usually don't present with supine hypotension

If results are negative, then the patient has probably pure autonomic failure or a genetic form of autonomic failure, and follow up is required to monitor development of motor symptoms. Considering that she has severe hypotension, we will proceed to coordinate an admission to the clinical research center for specialize testing

I have spent 60 minutes face-to-face the patient and/or family performing physical, examination, and counseling about diagnosis and treatment of autonomic neuropathy, syncope, orthostatic hypotension

Return to Clinic: Will coordinate admission to the clinical research center

CYNDYA ADRIANA SHIBAO, MD

Electronically signed by Cyndya Adriana Shibao Miyasato, MD at 10/16/2018 10:41 AM

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10/11/2018 - Procedure visit in Vanderbilt Heart

LMR Abstract Clinical Notes

Procedures by Jordan Kimmet, APRN at 10/11/2018 9:30 AM

Procedure Orders
1. Autonomic function test (AFT) [91075079] ordered by Provider Not In System at 08/14/18 1534

Autonomic Function Test

DATE OF SERVICE: 10/11/2018

PATIENT: Elizabeth Beyer
DOB: 3/30/1975
MRN: 046405923

Allergies:
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Medication	Sig
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• LORazepam (ATIVAN) 2 mg tablet	Take 2 mg by mouth as needed.
• omeprazole (PriLOSEC) 20 mg capsule	Take 20 mg by mouth daily.
• ondansetron (ZOFRAN) 4 mg tablet	Take 4 mg by mouth as needed for nausea or vomiting.

No facility-administered encounter medications on file as of 10/11/2018.

Time Since Meal: 15 hours
Height: 157.5 cm (62.01")
Weight: 46.3 kg (102 lb 1.2 oz)
Gender: Female

Orthostatic Vital Signs:

Ortho Challenge: 15 min Supine: B/P: 75/47
Ortho Challenge: 15 min Supine: HR: 48 bpm

Ortho Challenge: Upright 1 min: B/P: 32/22
Ortho Challenge: Upright 1 min: HR: 78 bpm

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10/11/2018 - Procedure visit in Vanderbilt Heart (continued)

LMR Abstract Clinical Notes (continued)

Ortho Challenge: Standing Time (min): 1 bpm

Interpretation: Severe orthostatic hypotension. Patient had baseline supine hypotension as well. Increase in heart rate with orthostatic hypotension is present.

Controlled Breathing Test:

Sinus Arrhythmia: HR Max: 57 bpm
Sinus Arrhythmia: HR Minimum: 49 bpm
Sinus Arrhythmia: HR (max-min): 8 bpm
Sinus Arrhythmia: SA Ratio (max/min): 1.16

Interpretation: Diminished cardiovagal responses.

Valsalva Maneuver Test:

Valsalva Maneuver: Baseline B/P: 96/55 Valsalva Maneuver: Baseline HR: 44 bpm

Valsalva Maneuver: Phase 2E B/P: 67/55 Valsalva Maneuver: Phase 2E HR: 64 bpm

Valsalva Maneuver: Phase 2L B/P: 67/55 Valsalva Maneuver: Phase 2L HR: 64 bpm

Valsalva Maneuver: Phase 4 B/P: 71/43 Valsalva Maneuver: Phase 4 HR: 51 bpm

Valsa Maneuver: Maximum HR (during or after Valsalva): 64 bpm
Valsalva Maneuver: Minimum HR (after Valsalva): 51 bpm
Valsalva Maneuver: Ratio: 1.25
Valsalva Pressure Reached: 28 mmHg

Interpretation: Abnormal valsalva with impaired cardiovagal response. Evidence of impaired sympathetic vasoconstriction with lack of recovery during phase 2 late and no overshoot during phase 4.

Interpretation:
Impairment of autonomic reflexes to both sympathetic and parasympathetic limbs. Testing is consistent with autonomic failure.

Jordan Kimmet, APRN

Electronically signed by Jordan Kimmet, APRN at 11/6/2018 11:00 AM

Procedures

10/11/2018 - Procedure visit in Vanderbilt Heart (continued)

Procedures (continued)

Autonomic function test (AFT) (Completed)

Autonomic function test (AFT)

Resulted: 10/11/18 0930, Result status: Final result

Ordering provider: Provider Not In System 10/11/18 0836 Order status: Completed
Filed by: Jordan Kimmet, APRN 11/06/18 1100
Narrative:
Jordan Kimmet, APRN 11/6/2018 11:00 AM
Autonomic Function Test
DATE OF SERVICE: 10/11/2018

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Ortho Challenge: Upright 1 min: HR: 78 bpm

Ortho Challenge: Standing Time (min): 1 bpm

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Procedures (continued)

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Interpretation: Diminished cardiovagal responses.

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Valsalva Maneuver: Phase 2L B/P: 67/55 Valsalva Maneuver: Phase 2L HR: 64 bpm

Valsalva Maneuver: Phase 4 B/P: 71/43 Valsalva Maneuver: Phase 4 HR: 51 bpm

Valsa Maneuver: Maximum HR (during or after Valsalva): 64 bpm
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Interpretation: Abnormal valsalva with impaired cardiovagal response. Evidence of impaired sympathetic vasoconstriction with lack of recovery during phase 2 late and no overshoot during phase 4.

Interpretation:
Impairment of autonomic reflexes to both sympathetic and parasympathetic limbs. Testing is consistent with autonomic failure.

Jordan Kimmet, APRN

Indications

Postural orthostatic tachycardia syndrome [R00.0, I95.1 (ICD-10-CM)]

Fax Call Report

HP LaserJet MFP M725

Fax Header Information

AdventHealth
407-303-6436
Oct/2/2019 11:47:23 AM

Job	Date/Time	Type	Line	Identification	Duration	Pages	Result
15335	Oct/2/2019 11:45:27 AM	Send	Analog	9016153223636	01:50	2	Success