

Progress Notes
Signed



Encounter Date: 5/23/2024

F/U of HALT/HAM involving RCC
Date of Service: 5/23/2024

Primary Care Provider:

Referring Provider:

Assessment and Plan:

Mr. [REDACTED] is a 71 y.o. who has a history of severe aortic stenosis managed with a TAVR using a 26mm Medtronic CV Evolut FX device via transfemoral access on 12/28/2022. In 08/2023, he was admitted for an inferior STEMI related to distal RCA thromboembolism; while prosthetic valve function was normal on follow up TTE, poor flow through the prosthetic aortic valve was noted on fluoroscopy concerning for occult leaflet thrombosis. He was started on plavix 75 mg qd and eliquis 5 mg BID and referred to the structural heart team for further management. Prior to SH follow up visit, he underwent a gated chest CTA which showed HALT involving the RCC.

He was continued on eliquis for 6 mos as well as plavix due to recent inferior STEMI. He presents today for a 6 month follow up visit after starting eliquis, as well as for his 1 year s/p TAVR visit. A gated chest CTA was performed on 2/6/2024 showing resolution of RCC HALT but minimal thickening of NCC. He was continued on eliquis for an additional 3 mos.

[REDACTED]

F/U gated chest CTA performed on 5/8/2024 showed **complete resolution of HALT/HAM** with normal prosthetic valve function.

Severe symptomatic aortic stenosis s/p TAVR (26mm Medtronic CoreValve Evolut FX via transfemoral access on 12/28/2022)

Inferior STEMI 2/2 thromboembolism of distal RCA s/p POBA 08/03/2023

Prosthetic leaflet thrombosis involving the right prosthetic aortic valve cusp, resolved

- HALT&HAM resolved on most recent gated chest CTA 05/08/2024
- Will STOP eliquis 5 mg BID at this time and START aspirin 81 mg once daily. Follow up with subsequent **gated chest CTA in 3 mo** to eval for recurrence. If there is evidence of recurrence of HALT, will need chronic anticoagulation with DOAC.
- *With his self-expandable valve and supra-annular design, echos are NOT a reliable indicator of prosthetic valve function and/or recurrence of prosthetic leaflet thrombosis (e.g. at time of STEMI, valve function appeared normal on echo). Gated chest CTA should be diagnostic study performed to evaluate for recurrence as opposed to TTE*
- Continue aspirin 81 mg once daily
- TTE performed today as part of 1 year follow up visit showing normal prosthetic valve functioning and no evidence of PVL
- He currently reports symptoms consistent with NYHA Class I

We have recommended that the patient continue ongoing care with regular team of healthcare providers (including PCP and cardiology).

I spent 30 minutes on this visit, greater than 50% of this time was spent counseling and coordinating care.

[REDACTED]

Reason for Visit:

Follow up for HALT/HAM resulting in inferior STEMI

HPI: Mr. [REDACTED] is a 70 y.o. who has a history of severe aortic stenosis. After evaluation by the Structural Cardiology team, the patient underwent transcatheter aortic valve replacement using 26mm Medtronic CoreValve Evolut FX via transfemoral access on 12/28/2022. He was doing well post-operatively until 08/03/2023 when he was admitted to [REDACTED] for chest pain, ultimately revealed to be an STEMI with RCA occlusion; he underwent mechanical thrombectomy using POBA of his distal RCA without need for formal PCI. No abnormalities of valve function noted on TTE, though during angiography poor flow through the prosthetic aortic valve noted concerning for occult leaflet thrombosis. He was started on plavix and eliquis on discharge, aspirin and antihypertensives discontinued. Follow up gated CTA on 8/11/2023 which was notable for HALT and mild HAM involving the RCC of his prosthetic aortic valve.

He was continued on eliquis and plavix for minimum 6 mos, and completed repeat gated chest CTA on 2/6/2024 which showed resolution of RCC HALT but minimal thickening of NCC. Plavix discontinued at that time and he was transitioned to aspirin 81 mg once daily, and continued on eliquis for additional 3 mo.

[REDACTED]

Repeat gated chest CTA performed on 5/8/2024 showed resolution of HALT/HAM and a normally functioning prosthetic aortic valve. A TTE was performed prior to today's visit and showed normal prosthetic valve functioning and no evidence of PVL.

Currently:

- Feeling great; playing golf regularly, denies any CV symptoms including chest pain or pressure, DOE, fatigue, LE edema, PND, orthopnea
- BP well controlled
- Generally tolerates aspirin/eliquis, though did cut his finger yesterday and bled for a while

Past Medical History:

Diagnosis	Date
• Allergic rhinitis	
• Anemia	
• Angina pectoris (CMS/HCC)	09/2021
• BPH (benign prostatic hyperplasia)	
• Coronary artery disease	
• COVID-19	07/2022
<i>Treated w/ Paxlovid, no hospitalization required. All sx's fully resolved</i>	
• COVID-19	12/13/2022
<i>Asymptomatic- subsequent home testing per patient were all negative</i>	
• Depression	
• ED (erectile dysfunction)	
• Heart murmur	
• History of lipoma	
• Hyperlipidemia	
• Hypertension	
• Nonrheumatic aortic (valve) stenosis	
• Nonrheumatic aortic valve stenosis	07/12/2021
<i>Note: aortic valve- moderate calcific stenosis and trace tricuspid regurge</i>	
• Peripheral neuropathy	
BLE	
• Psoriatic arthritis (CMS/HCC)	
• Pulmonary hypertension (CMS/HCC)	
• Spinal stenosis, lumbar region, with neurogenic claudication	02/2022

Past Surgical History:

Procedure	Laterality	Date
• ANGIOGRAM CORONARY ARTERY WITH LV & RIGHT HEART <i>Performed by [REDACTED]</i>	N/A	9/2/2021
• APPENDECTOMY		
• CATARACT EXTRACTION	Bilateral	
• CORONARY ANGIOGRAPHY W LEFT HEART CATH <i>Performed by [REDACTED]</i>	N/A	11/25/2022
• CORONARY ANGIOGRAPHY W LEFT HEART CATH <i>Performed by [REDACTED]</i>	N/A	8/3/2023
• FORAMINOTOMY MINIMALLY INVASIVE OF CERVICAL SPINE W/ C-ARM		
• NECK SURGERY <i>growth removed</i>		11/2020
• PERCUTANEOUS CORONARY INTERVENTION (PCI) <i>Performed by [REDACTED]</i>	N/A	8/3/2023
• REPLACEMENT TRANSCATHETER AORTIC VALVE ENDOVASCULAR (TAVR) WITH TEE	N/A	12/28/2022

- SOFT TISSUE TUMOR RESECTION
benign tumor
- TONSILLECTOMY

Family History

Problem	Relation	Age of Onset
• Rectal cancer	Mother	
• Other <i>valve surgery, ?BAV</i>	Father's Brother	

Social History

Socioeconomic History

- Marital status: Married
- Spouse name: Not on file
- Number of children: Not on file
- Years of education: Not on file
- Highest education level: Not on file

Occupational History

- Not on file

Tobacco Use

- Smoking status: Never
- Passive exposure: Past
- Smokeless tobacco: Never

Vaping Use

- Vaping status: Never Used

Substance and Sexual Activity

- Alcohol use: Yes
- Alcohol/week: 5.0 standard drinks of alcohol
- Types: 5 Standard drinks or equivalent per week
- Drug use: Never
- Sexual activity: Yes
- Partners: Female
- Birth control/protection: Male Sterilization

Other Topics

- Not on file

Social History Narrative

- Not on file

Social Determinants of Health

Financial Resource Strain: Not on file
 Food Insecurity: Not on file
 Transportation Needs: Not on file
 Physical Activity: Not on file
 Stress: Not on file
 Social Connections: Not on file
 Intimate Partner Violence: Not on file
 Housing Stability: Not on file

Prior to Admission medications

Medication	Sig	Start Date	End Date	Taking ?	Authorizing Provider
acetaminophen (Tylenol) 325 mg tablet	Take 2 (two) tablets (650 mg total) by mouth every 4 (four) hours as needed for moderate pain for up to 10 days.	12/29/22	1/8/23		
aspirin 81 mg tablet	Take 1 (one) tablet (81				Historical Provider, MD



	mg total) by mouth daily.			
atorvastatin (Lipitor) 40 mg tablet	Take 1 (one) tablet (40 mg total) by mouth daily.			Historical Provider, MD
escitalopram (Lexapro) 10 mg tablet	Take 1 (one) tablet (10 mg total) by mouth daily.	4/28/21		Historical Provider, MD
fluticasone propionate (Flonase) 50 mcg/actuation nasal spray	Administer 2 (two) sprays into each nostril 2 (two) times a day as needed for rhinitis or allergies.	3/23/20		Historical Provider, MD
folic acid (Folvite) 1 mg tablet	Take 1 (one) tablet (1 mg total) by mouth daily.	6/9/21		Historical Provider, MD
Humira,CF, Pen 40 mg/0.4 mL pen injector kit	1 Dose once a week. Sundays	8/24/21		Historical Provider, MD
hydroCHLOROthiazide (Hydrodiuril) 25 mg tablet	Take 1 (one) tablet (25 mg total) by mouth daily.	7/5/21		Historical Provider, MD
lisinopriL (Zestril) 40 mg tablet	Take 1 (one) tablet (40 mg total) by mouth daily.	7/10/21		Historical Provider, MD
methotrexate (Rheumatrex) 25 mg/mL injection	once a week. Sunday.	8/20/21		Historical Provider, MD
metoprolol succinate XL (Toprol-XL) 50 mg 24 hr tablet	Take 1 (one) tablet (50 mg total) by mouth daily. Hold until after you are seen at your one week follow up appointment with Structural Heart clinic	12/29/22	1/28/23	
montelukast (Singulair) 10 mg tablet	Take 1 (one) tablet (10 mg total) by mouth daily.	7/5/21		Historical Provider, MD
naproxen sodium (Aleve) 220 mg tablet	Take 1 (one) tablet (220 mg total) by mouth every 12 (twelve) hours as needed for mild pain.			Historical Provider, MD
nitroglycerin (Nitrostat) 0.4 mg SL tablet	Place 1 (one) tablet (0.4 mg total) under the tongue every 5 (five) minutes as needed for chest pain.	8/31/21	12/27/22	
predniSONE (Deltasone) 1 mg tablet	Take 3 (three) tablets (3 mg total) by mouth daily.	8/20/21		Historical Provider, MD
tadalafil (Cialis) 5 mg tablet	Take 1 (one) tablet (5 mg total) by mouth daily as needed for erectile dysfunction.	7/1/21		Historical Provider, MD

Allergies

Allergen

- Penicillins

Tolerated Ancef 12/28/22

Reactions

Hives and Rash

Current Outpatient Medications:



- adalimumab-adaz (Hyrimoz,CF, Pen) 40 mg/0.4 mL pen injector, Inject 0.4 mL (40 mg total) under the skin every 7 days., Disp: 4.8 mL, Rfl: 0
 - aspirin 81 mg tablet, Take 1 (one) tablet (81 mg total) by mouth daily., Disp: , Rfl:
 - atorvastatin (Lipitor) 40 mg tablet, Take 1 (one) tablet (40 mg total) by mouth daily., Disp: , Rfl:
 - carboxymethylcellulose sodium (REFRESH TEARS OPHT), Administer 2 drops into both eyes daily., Disp: , Rfl:
 - clindamycin (Cleocin HCL) 300 mg capsule, Take 2 (two) capsules (600 mg total) by mouth once as needed (30-60 mins prior to dental work) for up to 1 dose., Disp: 10 capsule, Rfl: 2
 - diclofenac sodium (Voltaren) 1 % gel, Apply 2.25 (two and one-quarter) inches (2 g total) topically daily as needed for pain. Up to 4x daily, Disp: , Rfl:
 - escitalopram (Lexapro) 10 mg tablet, Take 1 (one) tablet (10 mg total) by mouth daily., Disp: , Rfl:
 - fluticasone propionate (Flonase) 50 mcg/actuation nasal spray, Administer 2 (two) sprays into each nostril 2 (two) times a day as needed for rhinitis or allergies., Disp: , Rfl:
 - folic acid (Folvite) 1 mg tablet, Take 1 (one) tablet (1 mg total) by mouth daily. Take 1 tab daily orally, Disp: 90 tablet, Rfl: 1
 - hydroCHLOROthiazide (Hydrodiuril) 25 mg tablet, Take 1 (one) tablet (25 mg total) by mouth daily., Disp: , Rfl:
 - lisinopril (Zestril) 40 mg tablet, Take 1 (one) tablet (40 mg total) by mouth daily., Disp: , Rfl:
 - methotrexate (Rheumatrex) 25 mg/mL injection, Inject 1 mL (25 mg total) under the skin once a week. INJECT 1 ML UNDER THE SKIN ONE WEEKLY (SUNDAY)- LABS DUE; 7/29/2024 OR SOONER, Disp: 12 mL, Rfl: 0
 - metoprolol succinate XL (Toprol-XL) 50 mg 24 hr tablet, Take 1 (one) tablet (50 mg total) by mouth daily. Hold until after you are seen at your one week follow up appointment with Structural Heart clinic, Disp: 30 tablet, Rfl: 0
 - montelukast (Singulair) 10 mg tablet, Take 1 (one) tablet (10 mg total) by mouth daily., Disp: , Rfl:
 - multivitamin capsule, Take 1 (one) capsule by mouth daily., Disp: , Rfl:
 - predniSONE (Deltasone) 1 mg tablet, Take 3 (three) tablets (3 mg total) by mouth daily., Disp: , Rfl:
 - syringe with needle (Tuberculin Syringe) 1 mL 27 x 1/2" syringe, Use for weekly methotrexate injections, Disp: 100 each, Rfl: 11
 - nitroglycerin (Nitrostat) 0.4 mg SL tablet, Place 1 (one) tablet (0.4 mg total) under the tongue every 5 (five) minutes as needed for chest pain. (Patient not taking: Reported on 5/23/2024), Disp: 25 tablet, Rfl: 11
- No current facility-administered medications for this visit.

Facility-Administered Medications Ordered in Other Visits:

- perflutren lipid microsphere (Definity) injection 2.2 mg, 2.2 mg, intravenous, Once PRN, Katherine Rajotte, PA, 2.2 mg at 05/23/24 0906

PHYSICAL EXAM

height is 1.702 m (5' 7") and weight is 101 kg (222 lb 8 oz). His blood pressure is 110/71 and his pulse is 81. His oxygen saturation is 97%.

Body mass index is 34.85 kg/m².

General: Well appearing, well nourished adult male appearing stated age in NAD.

HEENT: Sclera anicteric. MMM. Oropharynx pink and moist, dentition fair.

Neck: Supple. No thyromegaly. Jugular venous distention at 5 cm H₂O. There is no cervical lymphadenopathy.

Respiratory: Vesicular breath sounds bilaterally throughout posterior fields. No wheezes, rhonchi, or rales.

Cardiac: PMI normal. Regular rate and rhythm. No lifts, heaves, or thrills. Normal S1 and S2. No clicks, gallops or rub. There are no audible murmurs. No peripheral edema. Pedal pulses 2+/2 bilat.

Gastrointestinal: Not distended. +BS. Soft, nontender to palpation. No hepatosplenomegaly, no masses,

aorta not grossly enlarged.

Psych: Cooperative and appropriate.

Neuro: Grossly intact.

Skin: Groin incision sites well healed. Mild ecchymoses. No bruises, hematomas, erythema, or exudates.

Lab Review:

Lab Results

Component	Value	Date
WBC	7.9	04/29/2024
HGB	14.3	04/29/2024
HCT	41.5	04/29/2024
MCV	106.7 (H)	04/29/2024
PLT	165	04/29/2024

Lab Results

Component	Value	Date
GLUCOSE	122 (H)	08/04/2023
CALCIUM	8.0 (L)	08/04/2023
NA	136	08/04/2023
K	4.1	08/04/2023
CO2	27	08/04/2023
CL	100	08/04/2023
BUN	18	08/04/2023
CREATININE	0.9	04/29/2024

TTE 12/28/2022 SCMC (Intraop for TAVR)

- Limited echo for peri-procedural guidance for Transcatheter aortic valve replacement (TAVR)
- At baseline there is severe aortic stenosis and no aortic insufficiency. The LV systolic function is normal
- After deployment of 29 mm Evolut Fx Transcatheter Heart Valve (THV), no mechanical complications are noted. The valve is well seated and well positioned. The LV function remains unchanged. The gradients are as expected for the valve type. There is trace paravalvular aortic insufficiency.

Aortic Valve There is a TAVR bioprosthetic valve. The prosthetic valve appears well-seated and appears to be functioning normally. There is trace paravalvular regurgitation.

TAVR Intra-Op Echo Measurements

Pre Valve Deployment:

? EF :	60-65 %
? LVOT diameter	1.9 cm
? Annulus diameter	3.3 cm x 2.9 cm
? Ao Sinus	3.3 cm
? ST Junction	2.9 cm
? Ascending Ao	3.6 cm
? Peak AoV velocity	364 cm/s
? Peak AoV gradient	53 mmHg
? Mean AoV gradient	30 mmHg
? AVA	0.7 cm ²
? AI severity	None
? MR severity	None

Post Valve Deployment:

? EF :	50-55 %
? There is a using 29mm Evolut Fx transcatheter heart valve in the aortic position with normal appearing fxn	
? Peak AoV velocity	100 cm/s
? Peak AoV gradient	4 mmHg
? Mean AoV gradient	2 mmHg
? AVA	2.8 cm ²
? Central AI severity	None
? Paravalvular AI severity	Trace
? MR severity	None
? Pericardial effusion	None

TTE 2/6/2023 SCMC (30 day s/p TAVR)

Normal LV size and systolic function. LVEF 60-65%

Normal RV size and systolic function

There is a well seated TAVR aortic valve in place, without stenosis or regurgitation

In comparison to prior periprocedural TTE 12/28/2022, there are no significant changes

LVOT diameter	1.9 cm
LVOT area	2.83 cm ²
LVOT peak vel	1.11 m/s
LVOT peak VTI	19.8 cm
AV peak vel	1.2 m/s
AV VTI	22.8 cm
AV VTI ratio	0.87
AV area	2.6 cm ²
AV area index	1.1 cm ² /m ²
AV mean gradient	2 mmHg
AV peak	6

gradient mmHg

TTE 8/3/2023 SCMC

- Normal LV cavity size and wall thickness. Systolic function is normal with an ejection fraction of 60-65%. Akinesis of the basal inferior wall. Left atrial pressure is elevated.
- Normal RV cavity size with normal RV systolic function.
- Well-seated TAVR bioprosthetic valve with normal prosthetic valve function. The gradient recorded across the prosthetic aortic valve is within the expected range 13 mmHg.
- No pericardial effusion.

Compared with prior study report 2/6/2023, basal inferior akinesis is now noted.

LVOT 2 cm
diameter

LVOT area 3.14
cm²

LVOT 0.96
peak vel m/s

LVOT 19.1
peak VTI cm

AV peak 2.4 m/s
vel

AV VTI 46.5
cm

AV VTI 0.41
ratio

AV area 1.5
cm²

AV area 0.7
index cm²/m²

AV mean 13
gradient mmHg

AV peak 16
gradient mmHg

TTE 5/23/2024 SCMC

Left VentricleCavity appears normal. Wall thickness is normal. Systolic function is normal with an ejection fraction of 55-60%. See diagram for wall motion abnormalities. There is diastolic dysfunction.

Wall MotionThe left ventricular wall motion is normal.

Right VentricleCavity appears normal. Systolic function is normal. Normal tricuspid annular plane systolic excursion (TAPSE) > 1.7 cm.

Left AtriumLeft atrial volume index is normal.

Right AtriumCavity is small.

IASColor Doppler indicates no evidence of shunting.

IVSThere is no visible ventricular septal defect.

Mitral ValveThe leaflets appear mildly thickened. There is trace regurgitation. There is no evidence of mitral valve stenosis.

Tricuspid ValveTricuspid valve structure is normal. There is trace regurgitation. There is no evidence of tricuspid valve stenosis. Tricuspid regurgitation jet is inadequate for evaluation of RVSP.

Aortic ValveThere is a TAVR bioprosthetic valve. The prosthetic valve appears to be functioning normally. There is no regurgitation. The gradient recorded across the prosthetic aortic valve is within the expected range.

Pulmonic ValvePulmonic valve structure is normal. There is trace regurgitation. There is no evidence of pulmonic valve stenosis.

AortaAppears normal in size.

PericardiumThere is no pericardial effusion.

LVOT 1.8 cm
diameter

LVOT area 2.54 cm²

LVOT peak vel 1.23 m/s

LVOT peak VTI25.2 cm

AV peak vel 1.43 m/s

AV VTI 28.2 cm

AV VTI ratio 0.89

AV area 1.97 cm²

AV area index 0.9 cm²/m²

AV mean 4 mmHg
gradient

AV peak 10 mmHg
gradient

GATED CHEST CTA 8/11/2023 SCMC

FINDINGS:

CARDIAC MORPHOLOGY:

Normal chamber size. No pericardial effusion.

VALVES:

A prosthetic aortic valve is in place. There is hypoattenuated leaflet thickening of the right valve with mildly decreased motion. There is normal coaptation of the valve leaflets.

Unremarkable CT appearance of the tricuspid, mitral, and pulmonic valves.

PULMONARY VEINS: Standard pulmonary venous anatomy. No accessory pulmonary veins are identified. Chicken wing left atrial appendage morphology with no filling defect.

CORONARY ARTERIES:

Moderate calcified coronary atherosclerosis.

Non-Cardiac:

AIRWAYS: The visualized airways are normal.

LUNGS: Bilateral dependent atelectasis is present. The visualized lung is otherwise clear.

PLEURA: No large pleural effusion or pneumothorax.

MEDIASTINUM: No mass or significant adenopathy. Unremarkable esophagus.

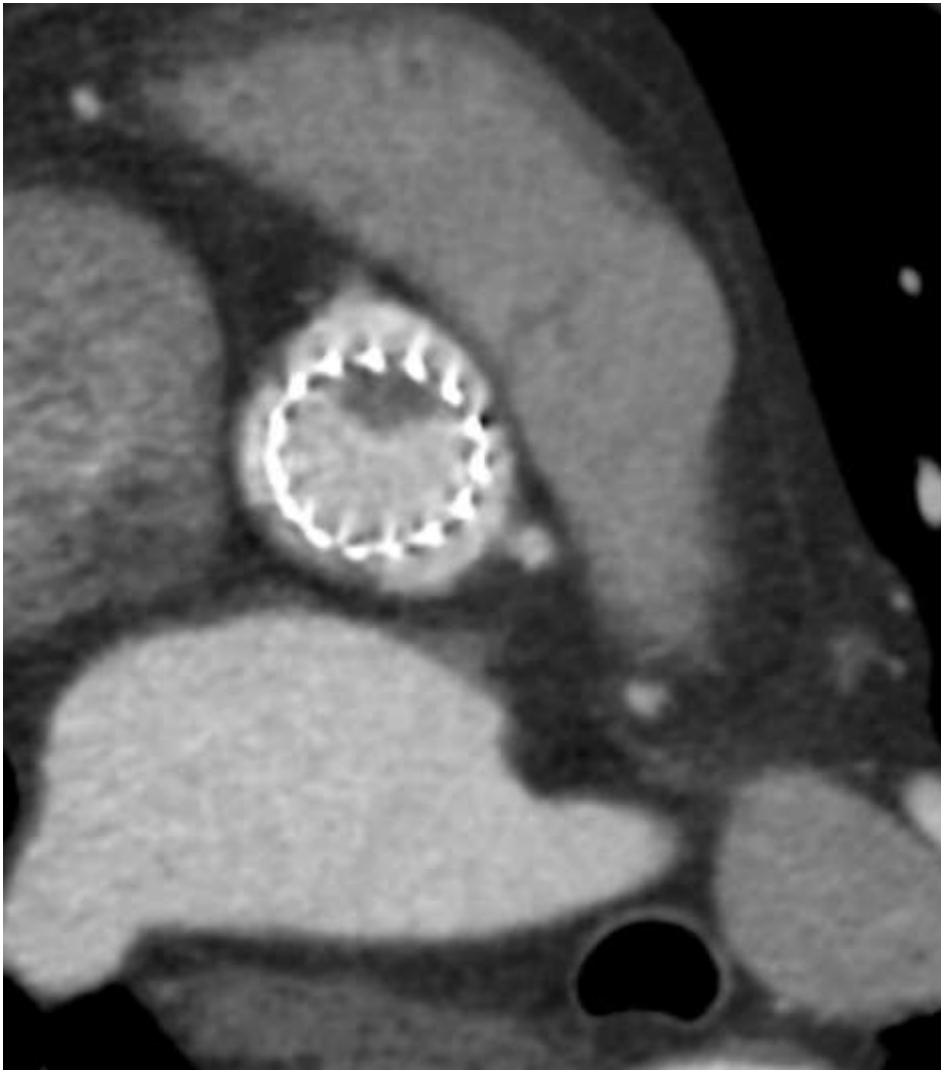
AORTA: The visualized portion is normal in caliber with no acute abnormality. There is mild atherosclerosis.

PULMONARY ARTERIES: Normal caliber. No central intraluminal filling defects.

UPPER ABDOMEN: Unremarkable.

AXILLA/CHEST WALL: No acute abnormality in chest wall soft tissues. No acute fracture or suspicious focal osseous lesion is identified. Advanced multilevel degenerative osteophytosis in the thoracic spine

IMPRESSION:



GATED CHEST CTA 2/6/2024 SCMC

FINDINGS:

CARDIAC MORPHOLOGY AND FUNCTION:

Normal chamber size. No pericardial effusion.

VALVES: A prosthetic aortic valve is present. The previously seen thickening of the right leaflet has resolved. There is minimal thickening of the noncoronary leaflet. There is no thickening of the left leaflet.

Unremarkable CT appearance of the tricuspid, mitral, and pulmonic valves.

CORONARY ARTERIES:

Moderate calcified coronary atherosclerosis.

PULMONARY VEINS: Standard pulmonary venous anatomy. No accessory pulmonary veins are identified.

LEFT ATRIAL APPENDAGE:

Morphology: Chicken wing (dominant lobe with an acute folded angle).

There is not a filling defect in the left atrial appendage.

Non-Cardiac:

AIRWAYS: The visualized airways are normal in caliber with no endoluminal filling defect.

LUNGS: The visualized lung is clear.

PLEURA: No pleural effusion or pneumothorax.

MEDIASTINUM: No mass or significant adenopathy. Unremarkable esophagus.

AORTA: The visualized portion of the thoracic aorta is normal in caliber with no acute abnormality.

PULMONARY ARTERIES: Normal caliber. No intraluminal filling defects.

UPPER ABDOMEN: Unremarkable.

AXILLA/CHEST WALL: No acute abnormality in chest wall soft tissues. No acute fracture or suspicious focal osseous lesion is identified.

IMPRESSION:

The previously seen thickening of the right leaflet of the aortic valve prosthesis has resolved. There is minimal thickening of the noncoronary leaflet.



GATED CHEST CTA 5/8/2024 SCMC

IMPRESSION:

Prosthetic aortic valve is present. Previously seen leaflet thickening has resolved

Follow-Up on 5/23/2024 *Note shared with patient*

Additional Documentation

Vitals: BP 110/71 (BP Location: Left arm, Patient Position: Sitting) Pulse 81 Ht 1.702 m (5' 7") Wt 101 kg (222 lb 8 oz)
SpO2 97% BMI 34.85 kg/m² BSA 2.12 m²

Orders Placed

None

Medication Changes

As of 5/23/2024 9:52 AM

	Refills	Start Date	End Date
Discontinued or Completed: apixaban (Eliquis) 5 mg tablet			

Visit Diagnoses

Primary: **Thromboembolism of prosthetic heart valve** T82.817A, Z95.2
S/p TAVR (transcatheter aortic valve replacement), bioprosthesis Z95.3