Challenging Cases

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BEST HOSPITALS U.S.News & WORLD REPORT NATIONAL CARDIOLOGY & HEART SURGERY 2017-18

Disclosures

No disclosure relevant to this presentation

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CASE

- 22 yo male with no prior medical history presents with chest pain
- ROS remarkable only for short term use of anabolic steroids
- 2D echo ordered

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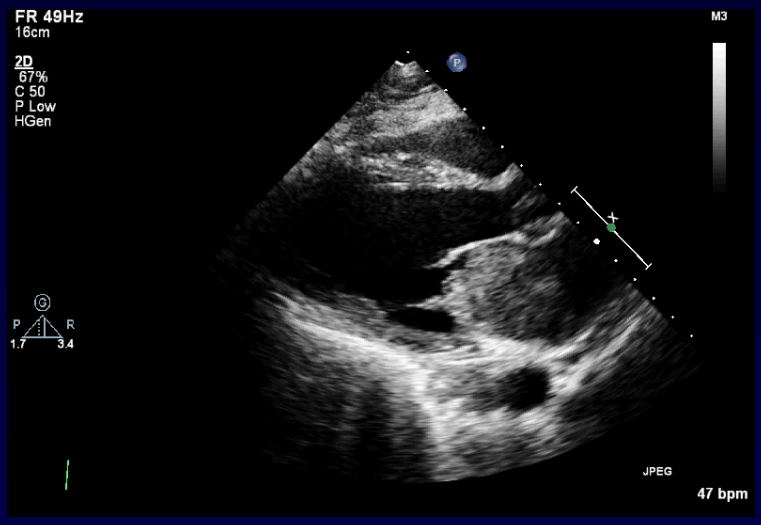

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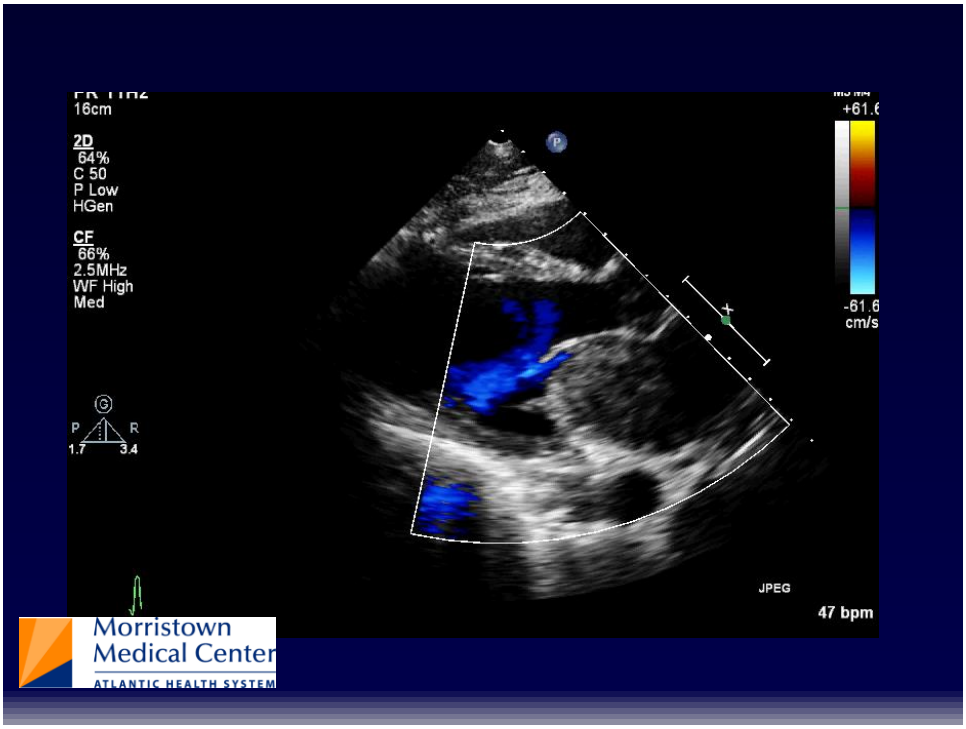
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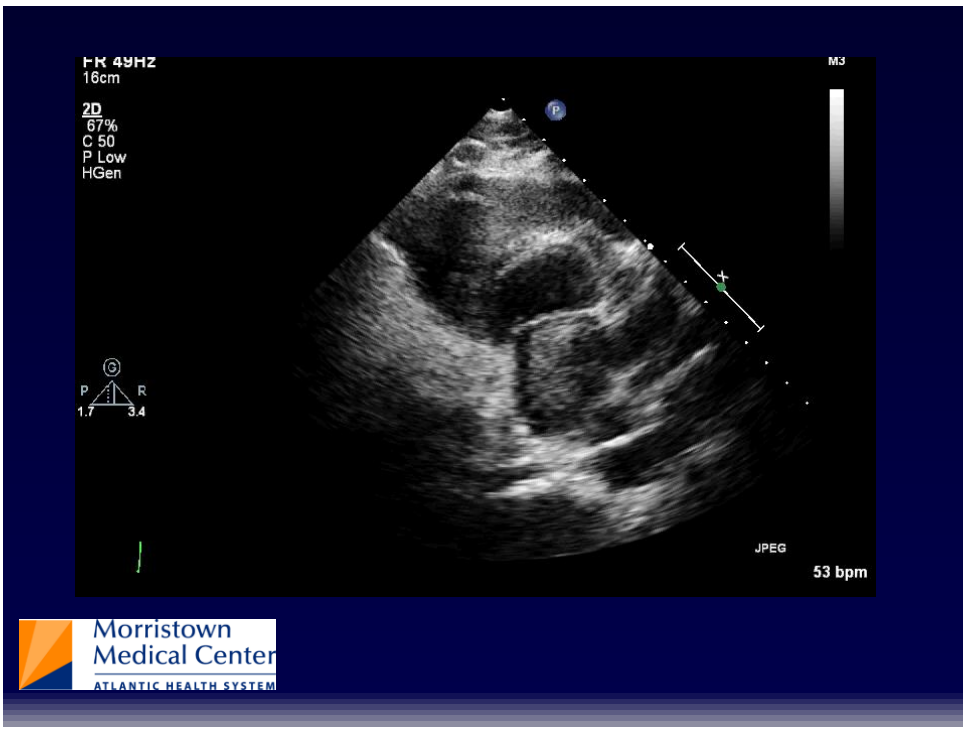
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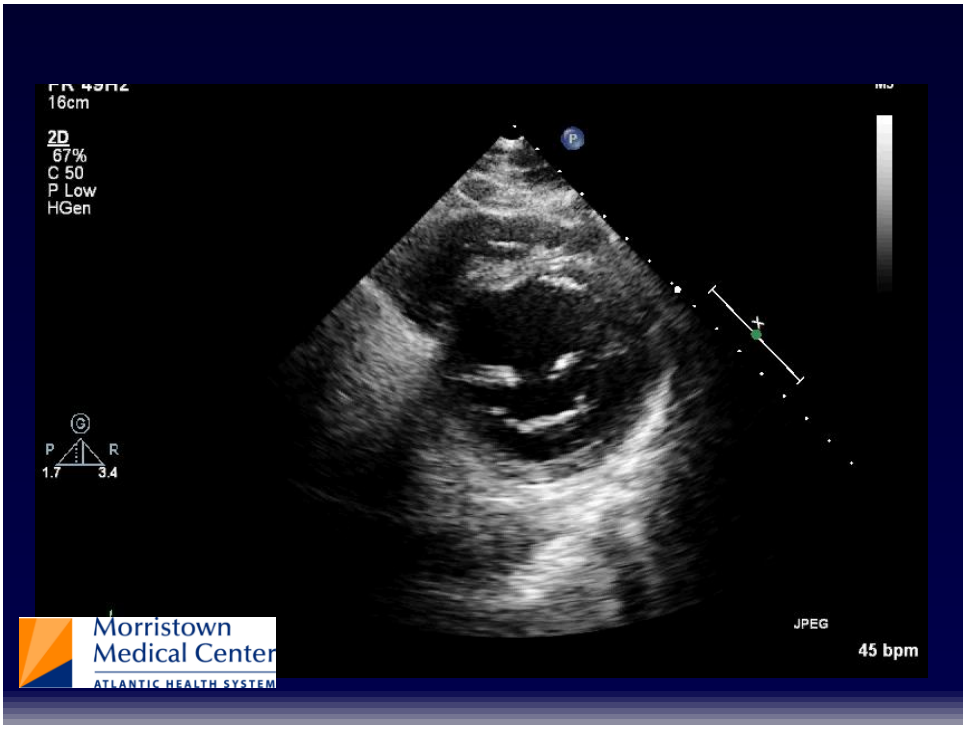
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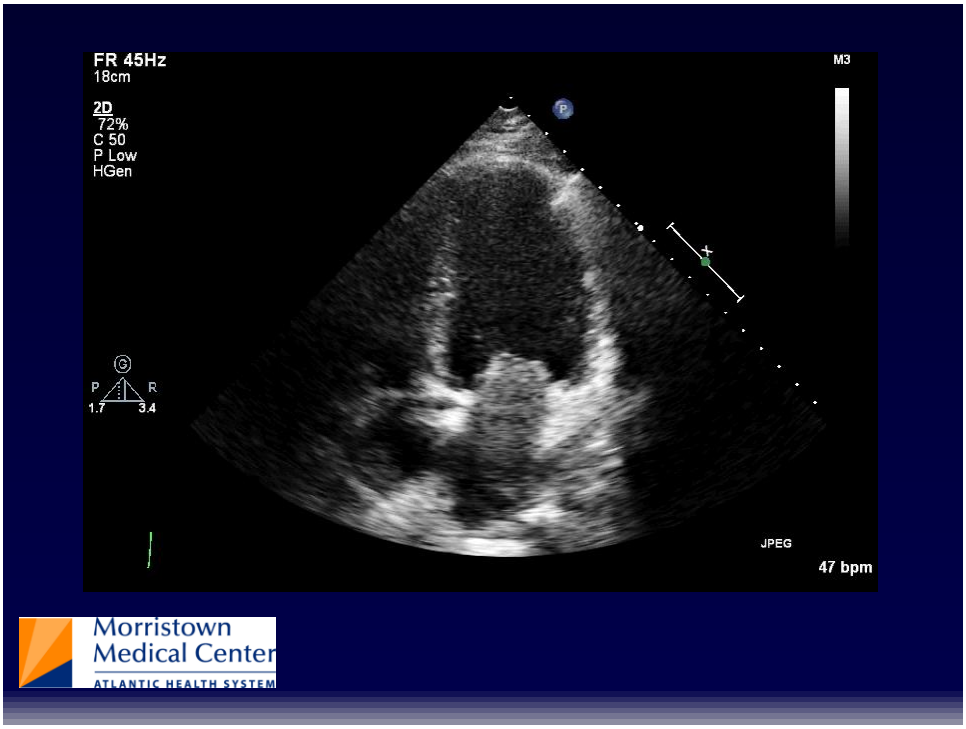
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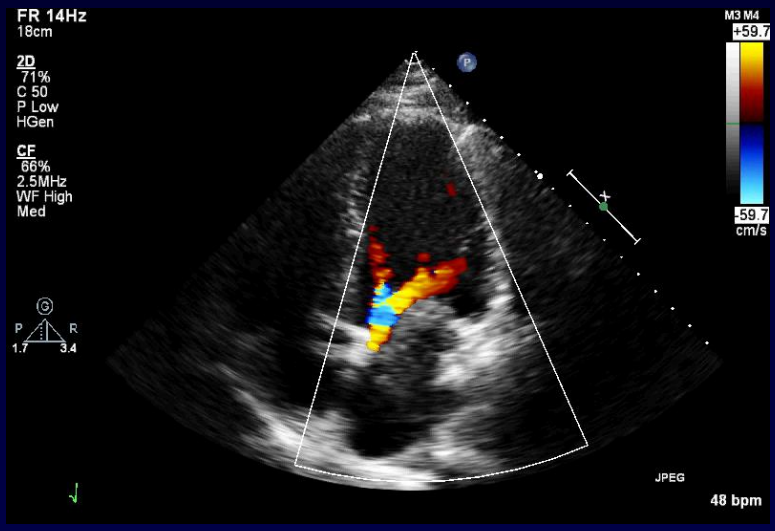

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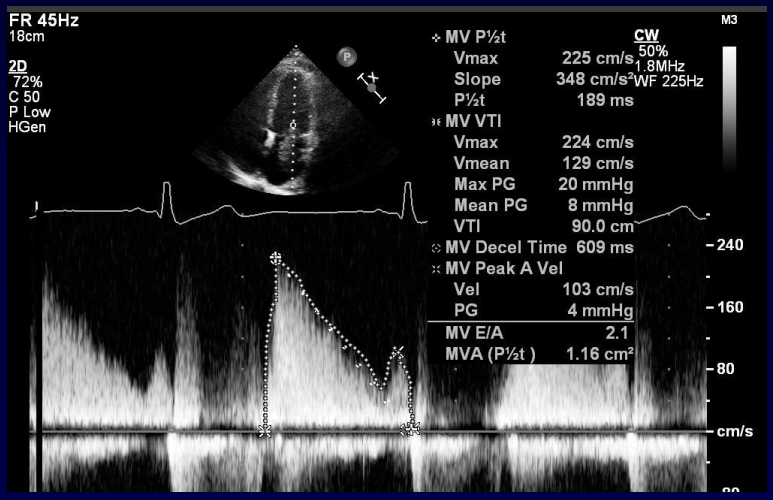

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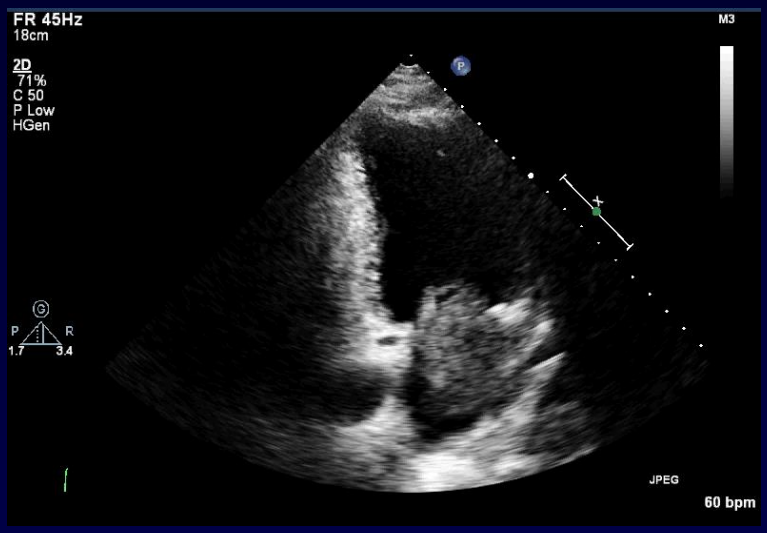

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Thoughts?

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TEE

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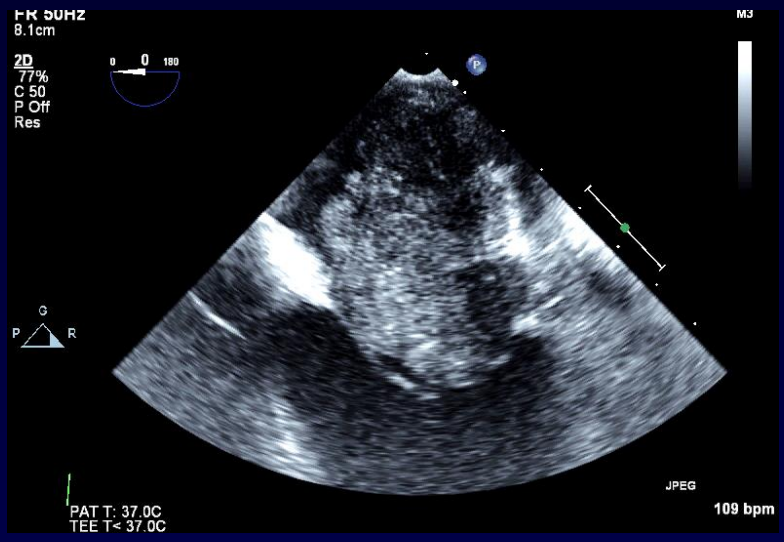

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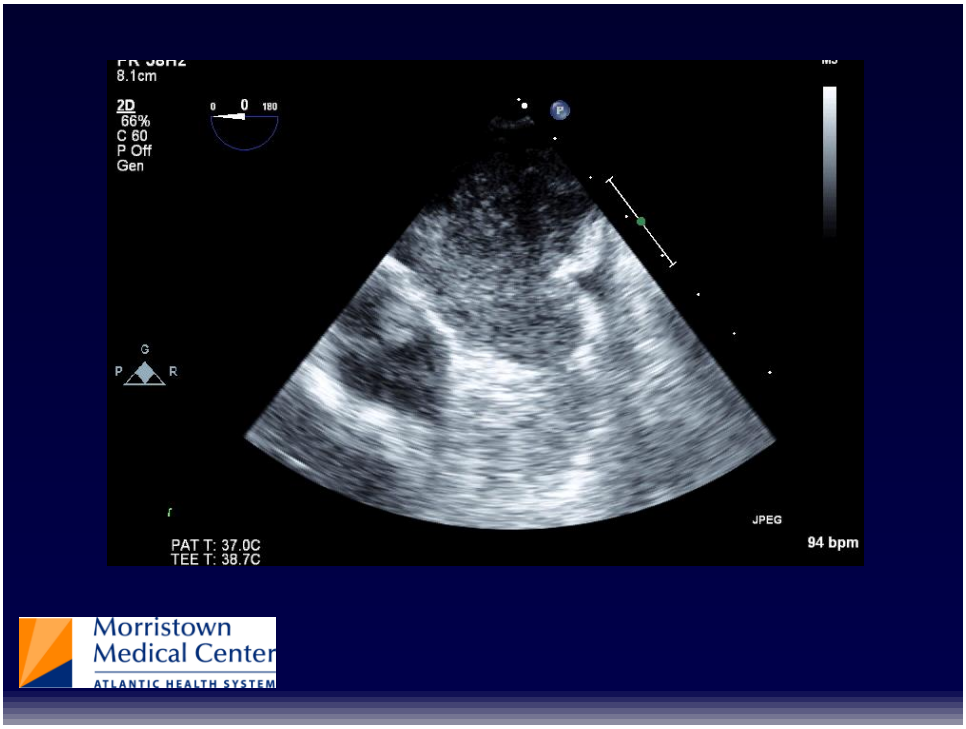
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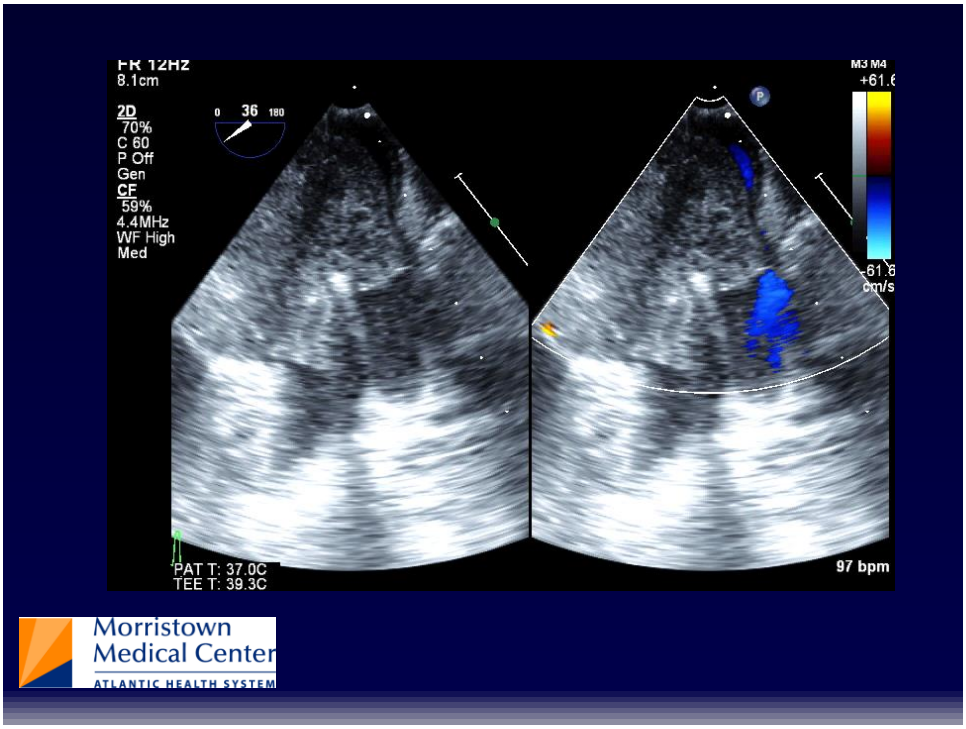
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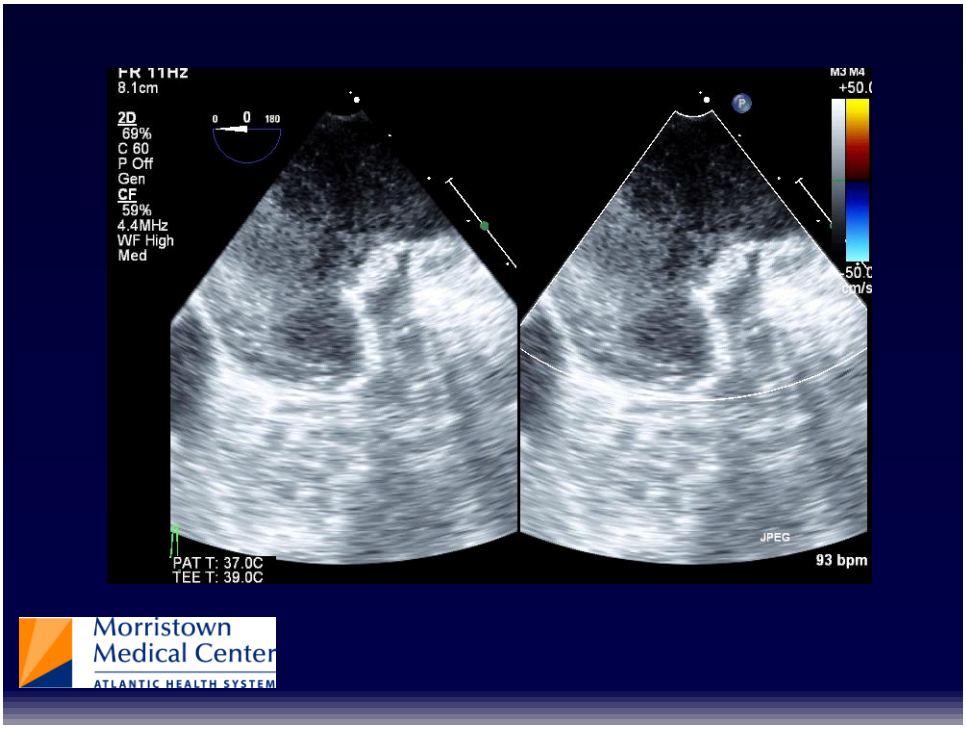
ATLANTIC HEALTH SYSTEM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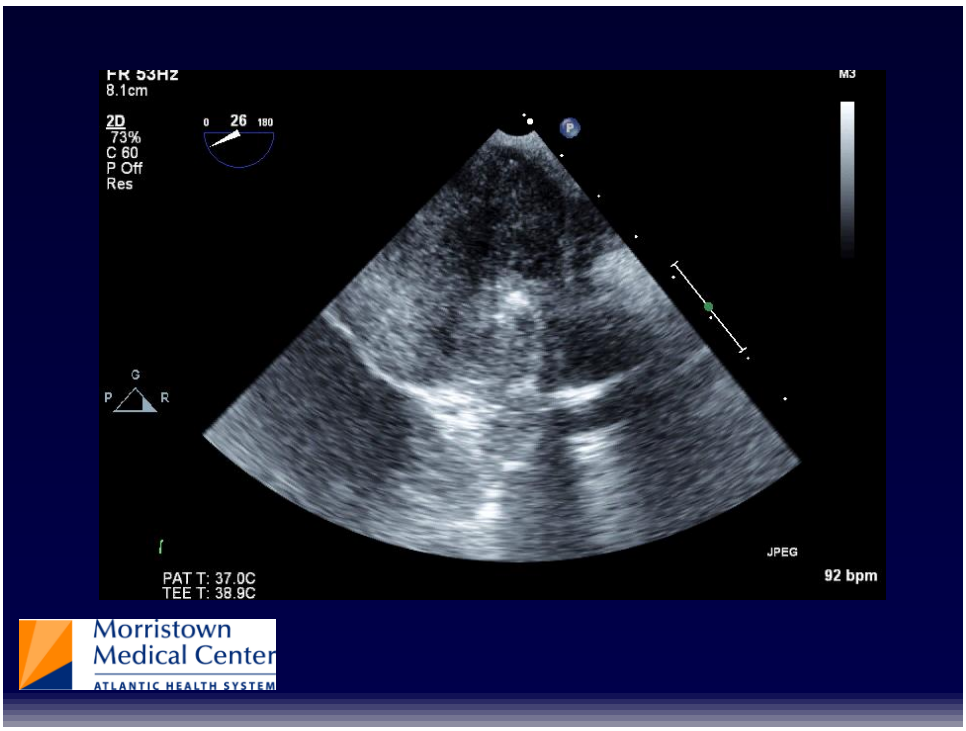
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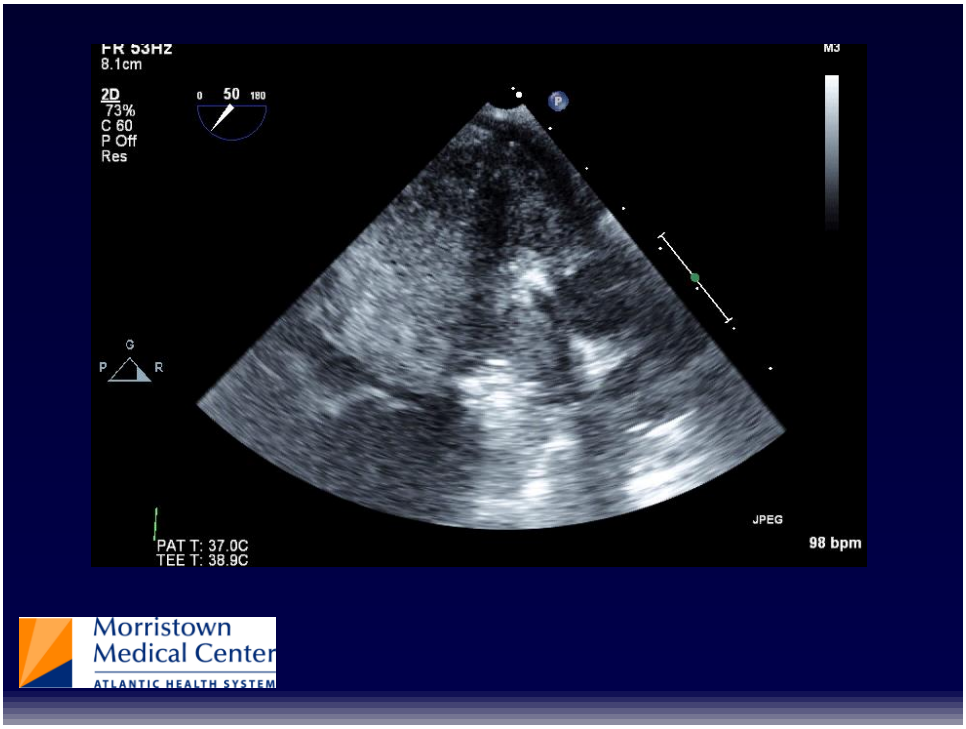
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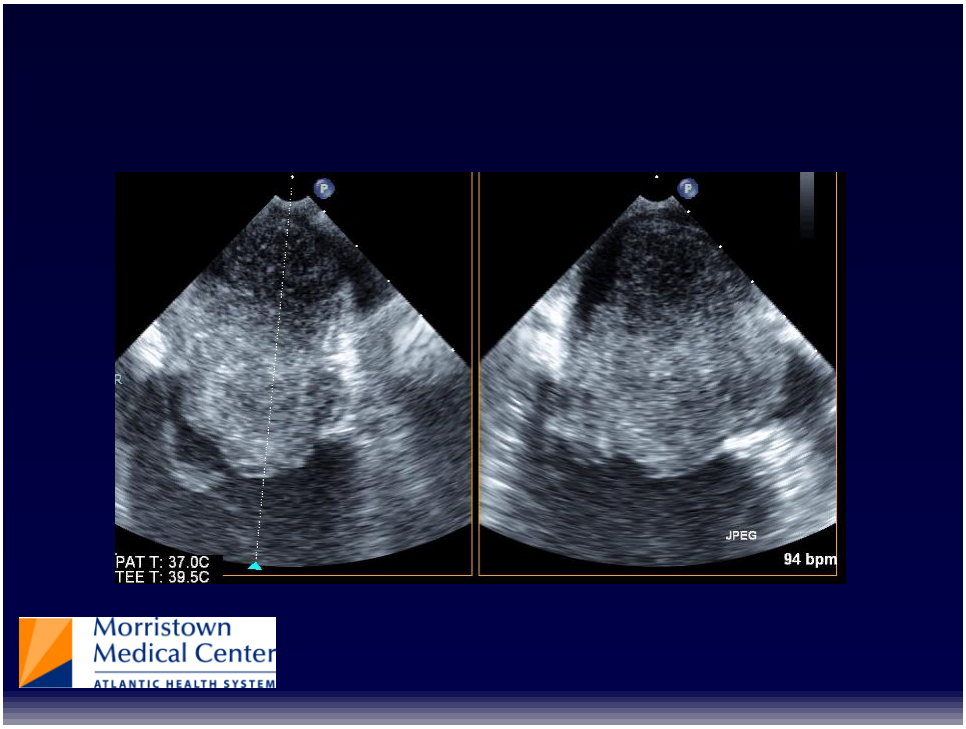
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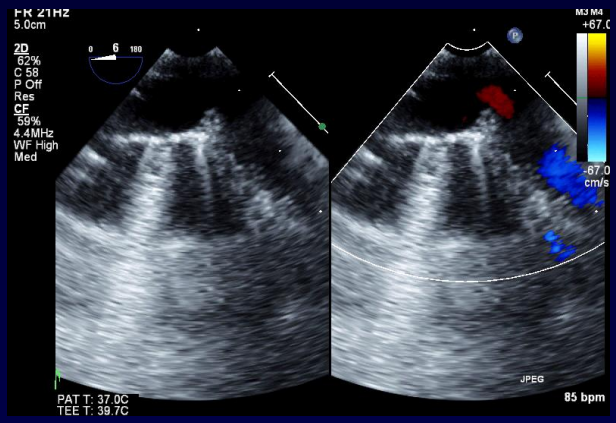

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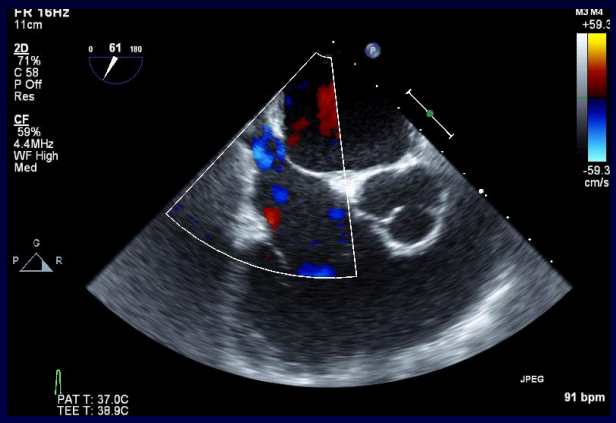

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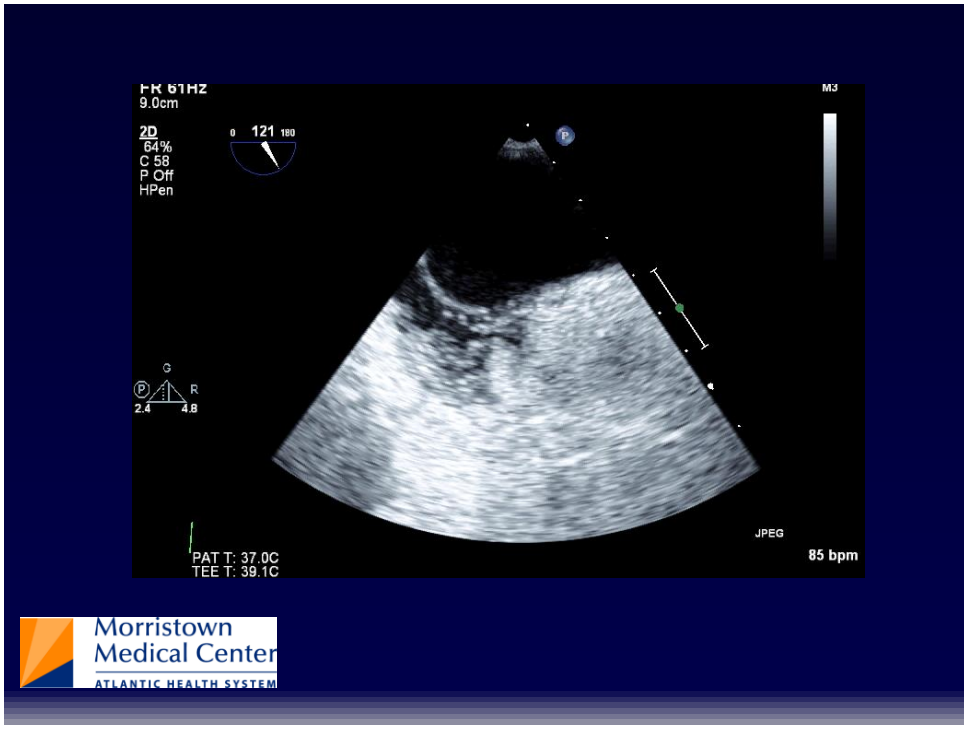
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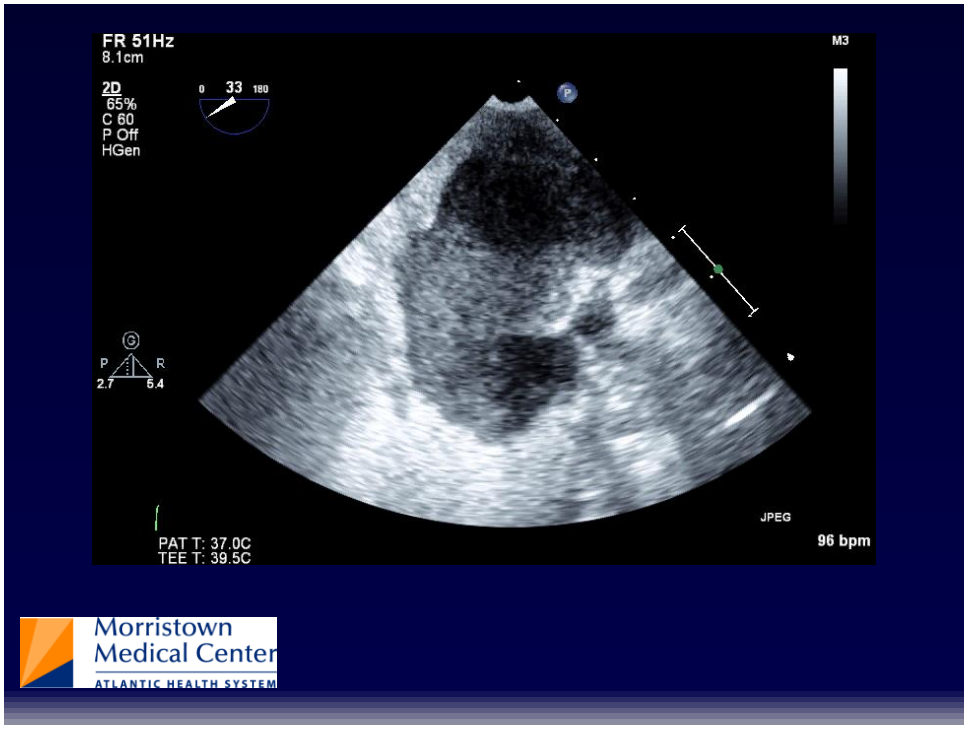
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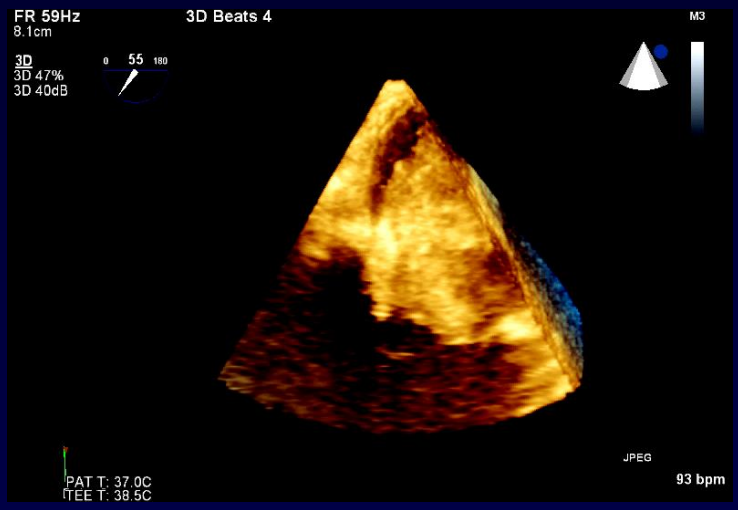
Morristown
Medical Center
ATLANTIC HEALTH SYSTEM



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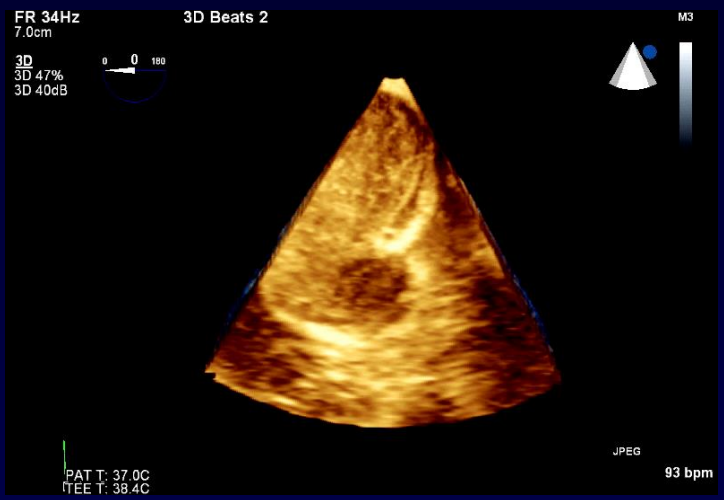

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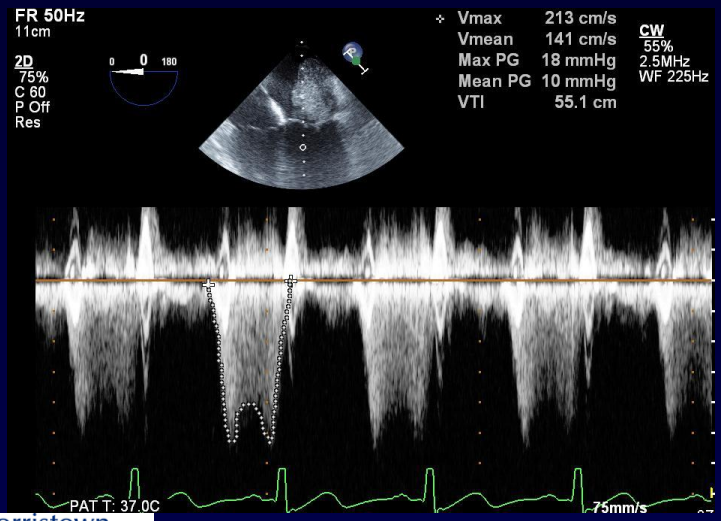

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Case Continued

- CT confirmed intracardiac mass
- No other abnormalities (search for evidence of primary tumor)
- Surgical excision performed

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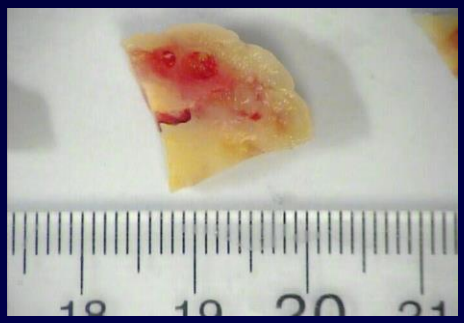

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Frozen section: Myxoma

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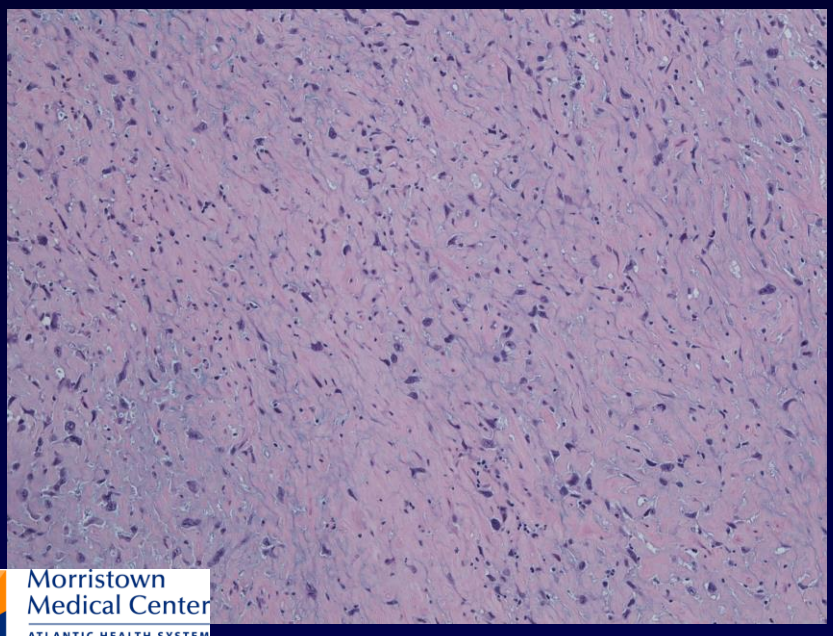

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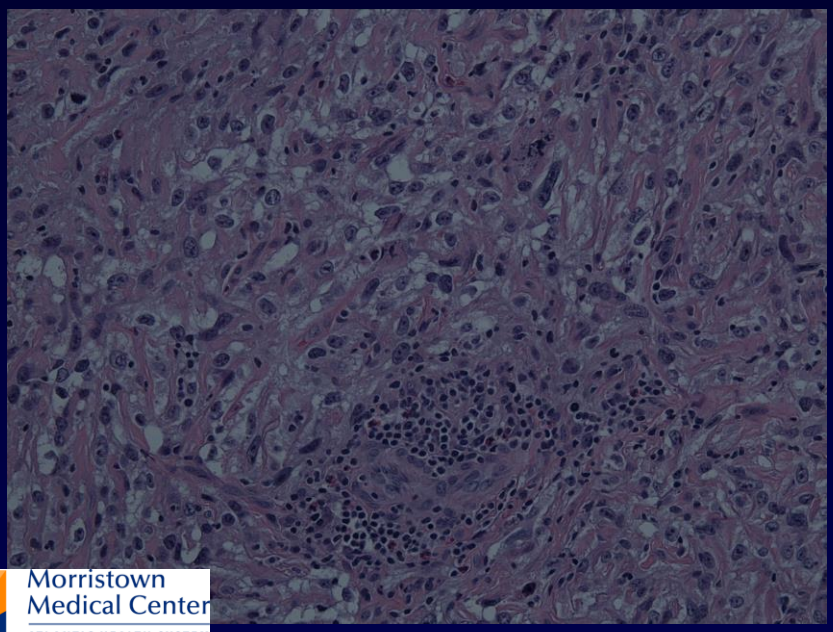

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Final Diagnosis

Intimal Sarcoma

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Table 91.1 Type and Frequency of Primary Cardiac Tumors*

Benign tumors (N=319, 59.8%)	
Myxoma	24.4%
Lipoma	8.4%
Papillary fibroelastoma	7.9%
Rhabdomyoma	6.8%
Fibroma	3.2%
Hemangioma	2.8%
Teratoma	2.6%
Mesothelioma of the A-V node	2.3%
Granular cell tumor	< 1.0%
Neurofibroma	< 1.0%
Lymphangioma	< 1.0%
Cysts (N=89, 16.7%)	
Pericardial cyst	15.4%
Bronchogenic cyst	1.3%
Malignant tumors (N=125, 23.5%)	
Angiosarcoma	7.3%
Rhabdomyosarcoma	4.9%
Mesothelioma	3.6%
Fibrosarcoma	2.6%
Lymphoma	1.3%
Extraskeletal osteosarcoma	< 1.0%
Neurogenic sarcoma	< 1.0%
Malignant teratoma	< 1.0%
Thymoma	< 1.0%
[illegible]iomyosarcoma	< 1.0%
[illegible]osarcoma	< 1.0%
[illegible]novial sarcoma	< 1.0%

*From 533 cases reviewed by the Armed Forces Institute of Pathology.[2]

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Open Journal of Thoracic Surgery, 2012, 2, 25-28
doi:10.4236/ojts.2012.22008 Published Online June 2012 (http://www.SciRP.org/journal/ojts)

Scientific Research

Primary Intimal Sarcoma of the Pulmonary Vein with Extension into the Left Atrium: A Case Report

Constantine D. Mavroudis[1], Alfred Casillan[1], Mark Rabbat[2], Aileen Go[3], Edward Melian[4], Mamdouh Bakhos[1], Christopher H. Wigfield[1*]

[1]Department of Thoracic and Cardiovascular Surgery, Stritch School of Medicine, Loyola University Chicago, Maywood, USA; [2]Department of Cardiology, Stritch School of Medicine, Loyola University Chicago, Maywood, USA; [3]Department of Oncology, Stritch School of Medicine, Loyola University Chicago, Maywood, USA; [4]Department of Radiation Oncology, Stritch School of Medicine, Loyola University Chicago, Maywood, USA.
Email: *cwigfield@lumc.edu

Received February 16th, 2012; revised March 19th, 2012; accepted March 25th, 2012

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Take Home Message

- Not all left atrial masses are myxomas
- Pulmonary venous invasion/extension is a marker of malignancy

Another Diagnostic Conundrums

With thanks to Leo Marcoff, MD

Case History

- 54M with history of HTN and repaired coarctation of the aorta (age 7)
- Several days of progressive shortness of breath, worse when lying flat
- No cough or fever
- No chest pain

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Physical Exam

- BP 155/70, HR 83, O2 sat RA =96%
- Clear lungs
- Regular heart rhythm, No murmurs, rubs, or gallops
- No leg edema

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Diagnostic Studies

- EKG –NSR, left anterior fascicular block, no ischemic changes
- CXR –normal
- CT chest - small infiltrate in the right upper lobe
  - started on abx

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Diagnostic Studies

- TTE - calcified mobile mass in the left ventricle attached to papillary muscle
- Transferred to our center for further management
- TTE reviewed - Cardiac MRI for evaluation of LV mass

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Cardiac MRI

- Technically limited due to premature beats
- 11 x 9 mm mass adjacent or attached to the anterolateral papillary muscle
- Unlikely to be fat
- Thrombus versus mass
- TEE to evaluate further

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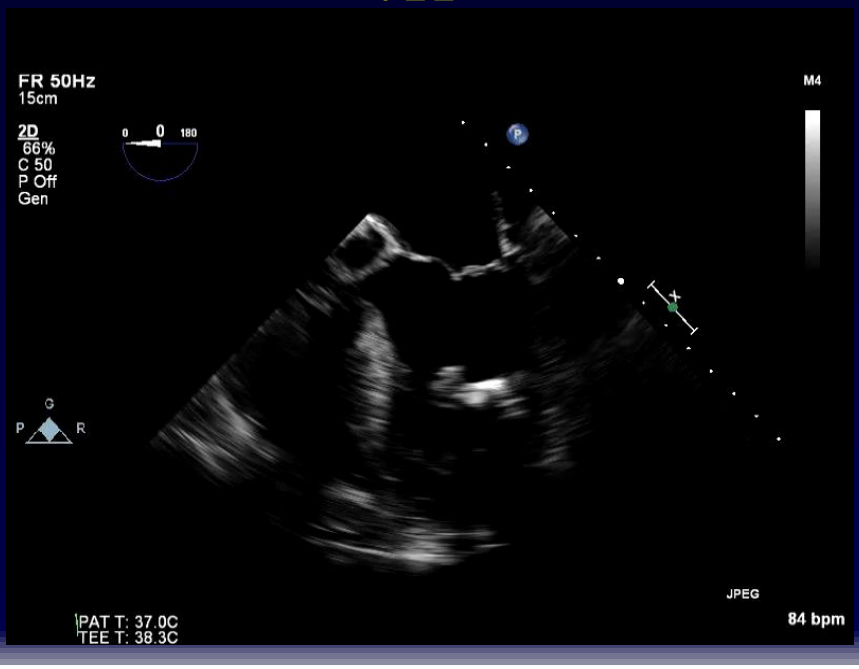
TEE



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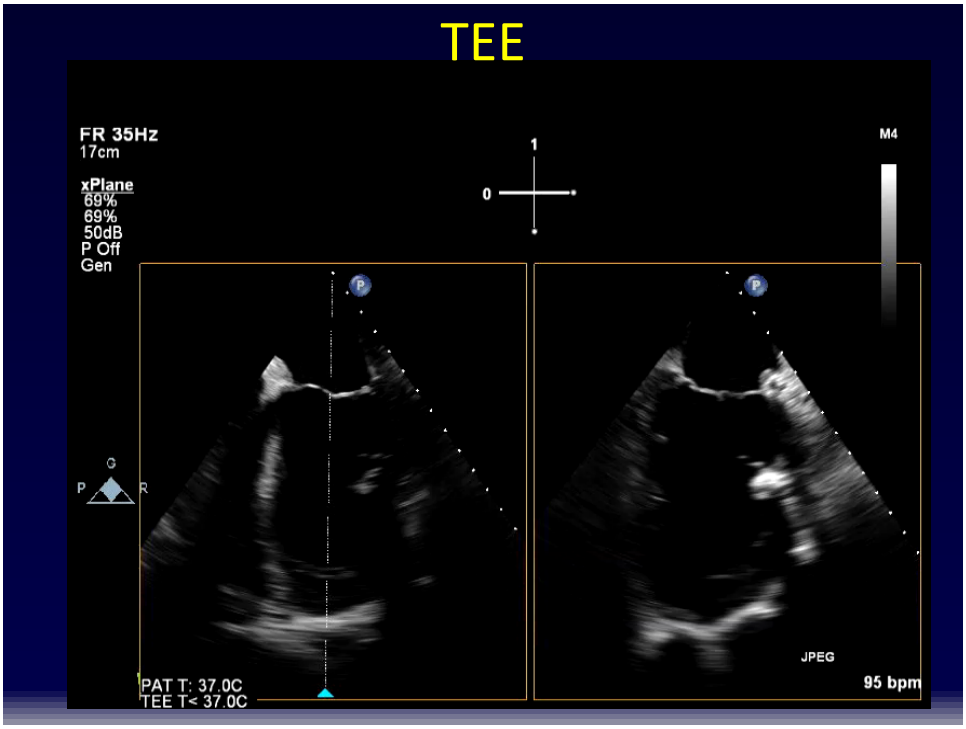
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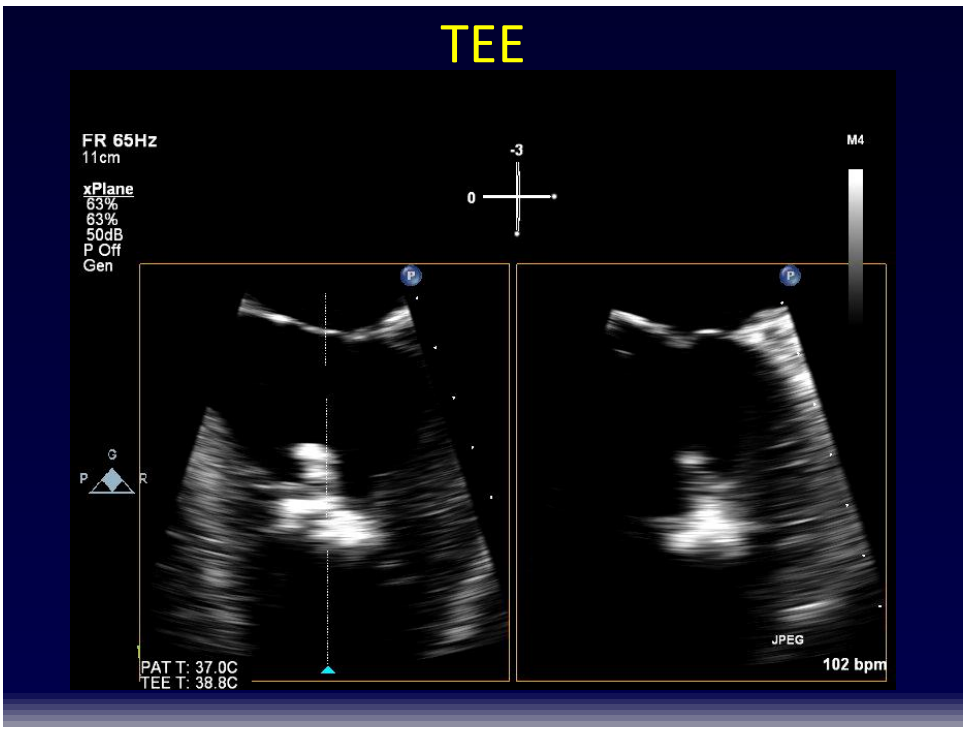
TEE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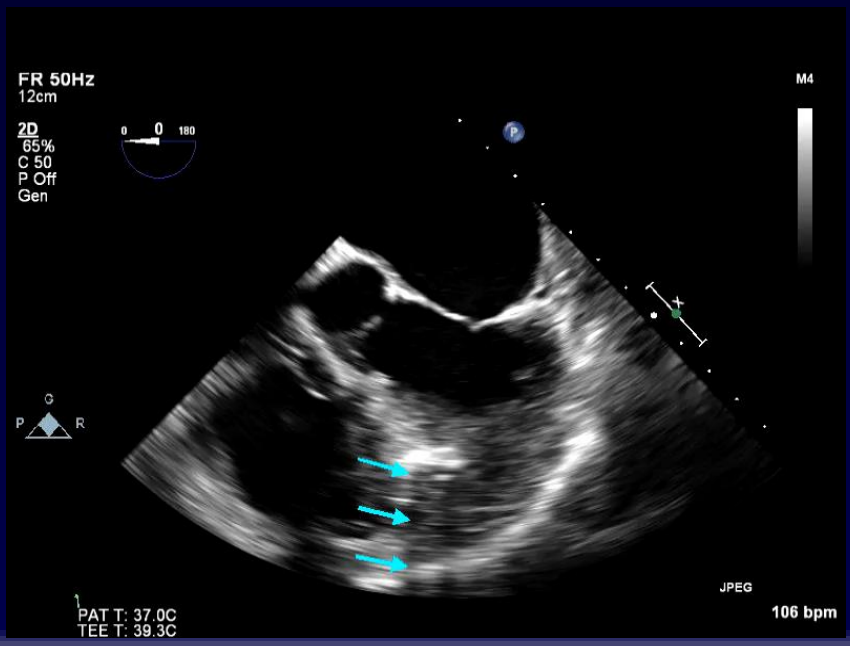
TEE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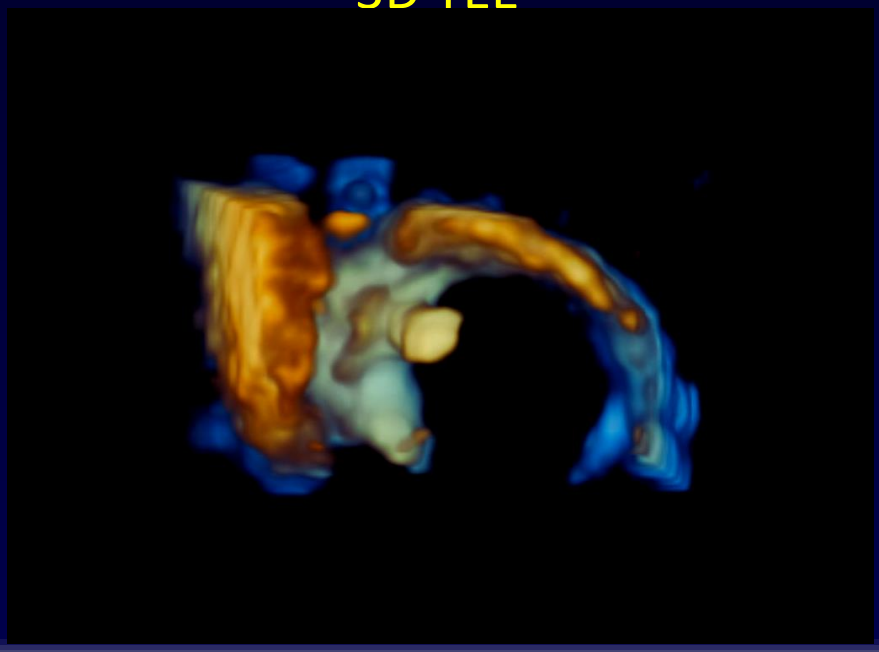
3D TEE



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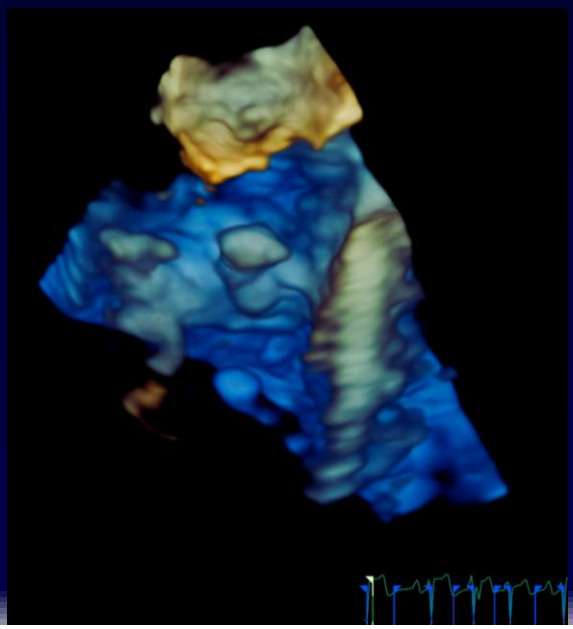

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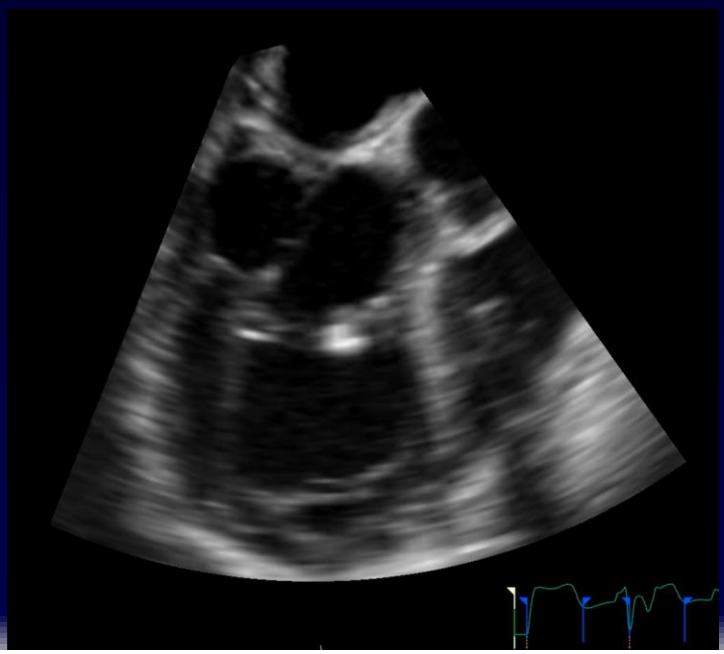

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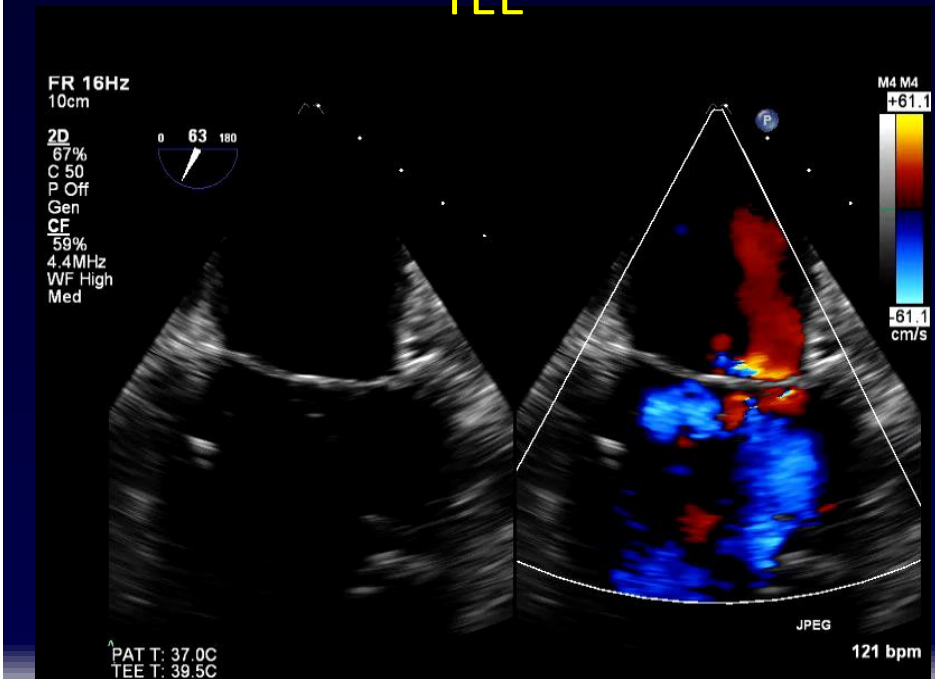
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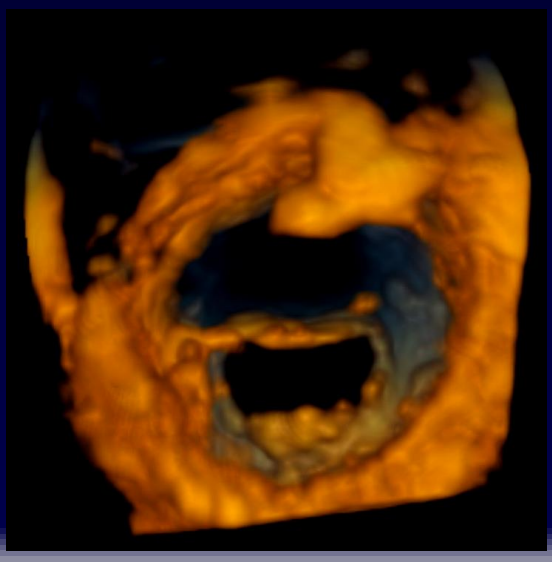
PAT T: 37.0C
TEE T: 39.5C

3D TEE



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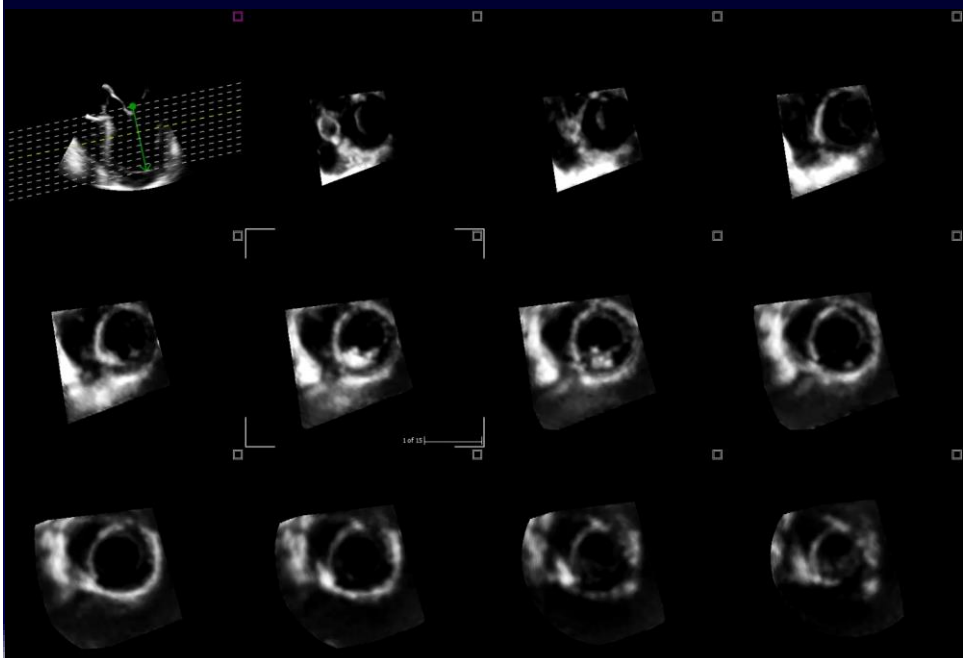

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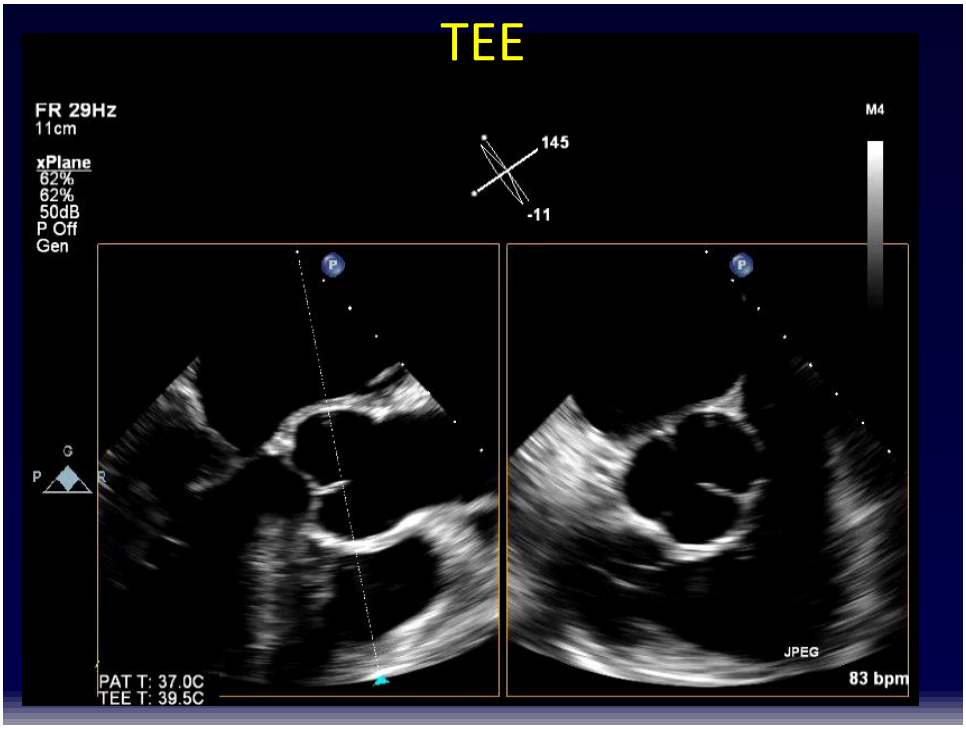
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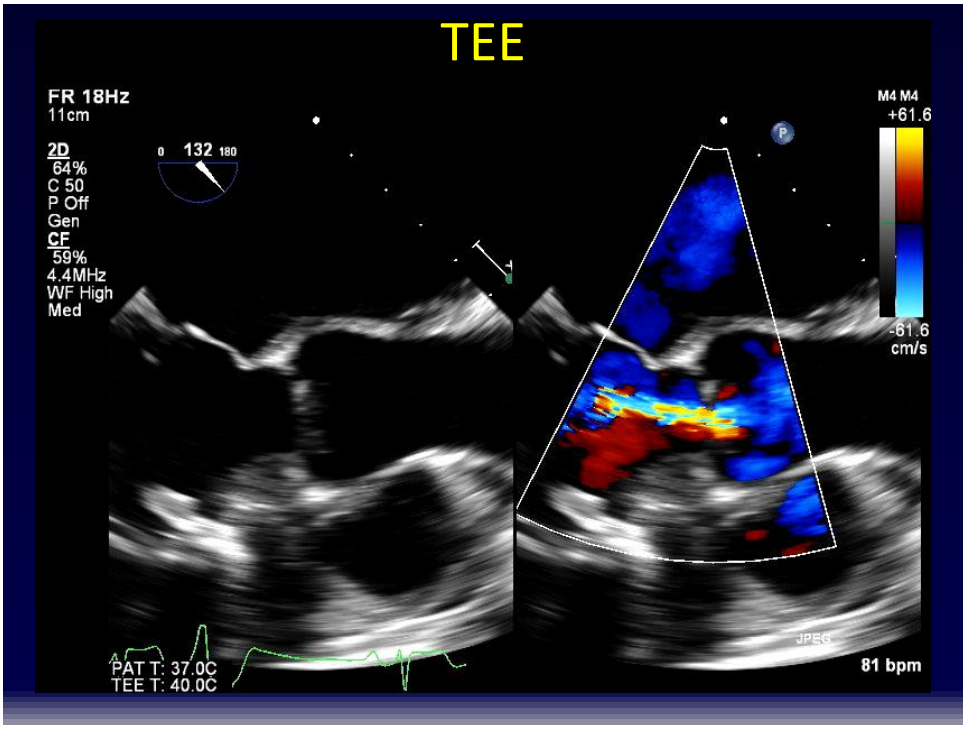

- Differential diagnosis
  - Neoplasm
  - Thrombus
  - Vegetation
  - Sarcoidosis
  - Other?

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Management

- Diagnostic uncertainty
- Likely embolic risk
- CT surgery consulted
- Resection of left ventricular mass through aortotomy and aortic root
- Total bypass time of 36 minutes

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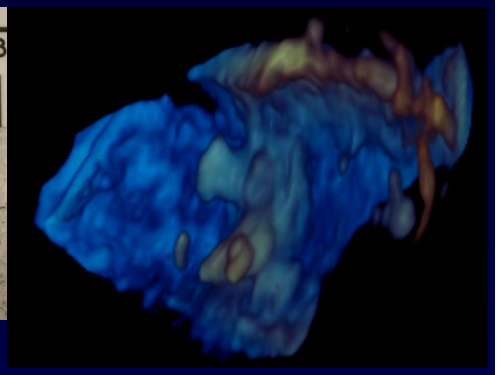
Pathology

Image courtesy of Dr. Christopher Magovern

Pathology

Image courtesy of Dr. Christopher Magovern



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Diagnosis

- Calcified nodule, suggestive of a calcified mural thrombus also known as Cardiac Calcified Amorphous Tumor
- No evidence of a neoplastic process.
- No evidence of sarcoidosis.

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