
Cases: Endocarditis

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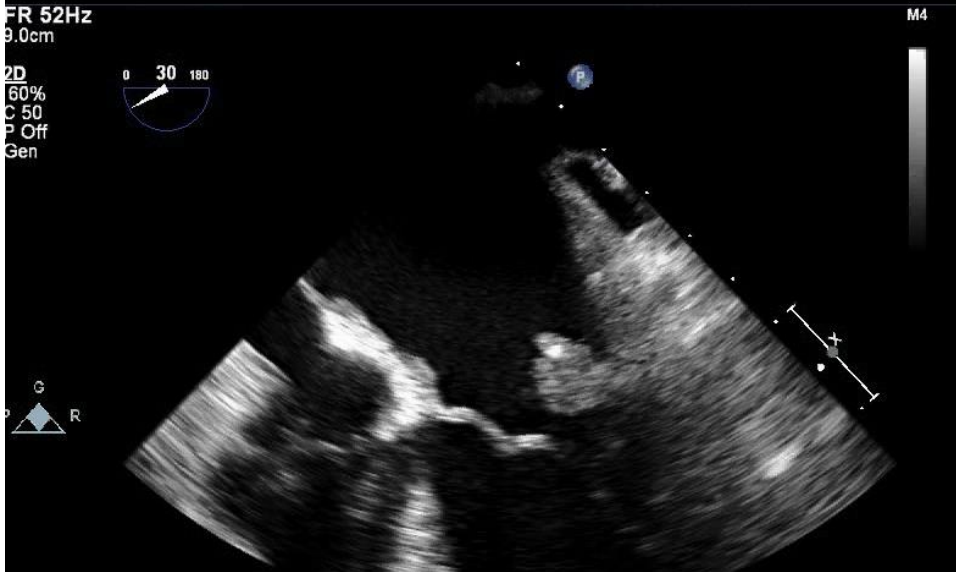


What is a vegetation?

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& Vascular Center

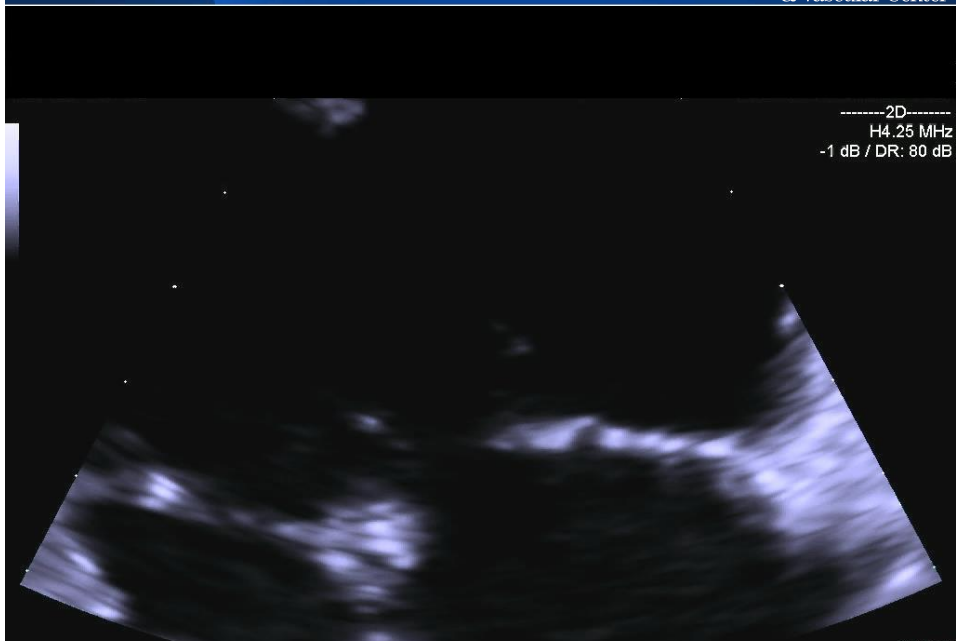
Native Mitral Valve IE

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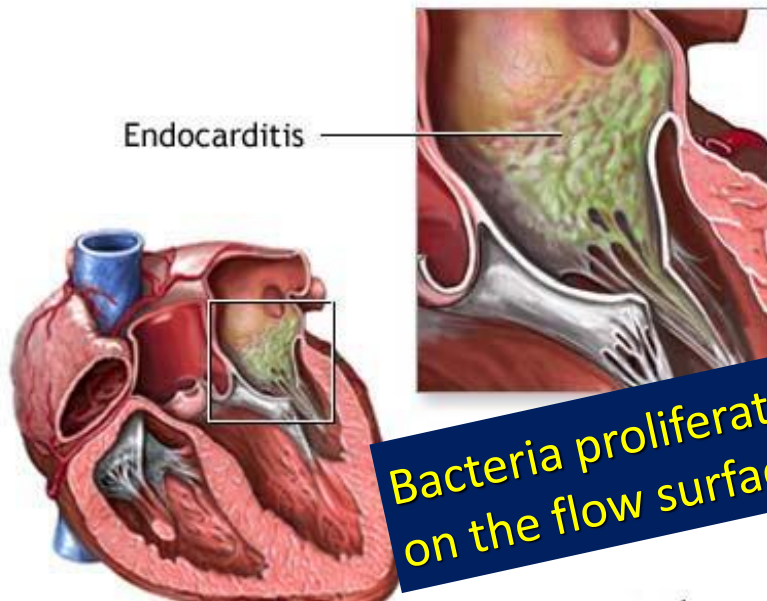
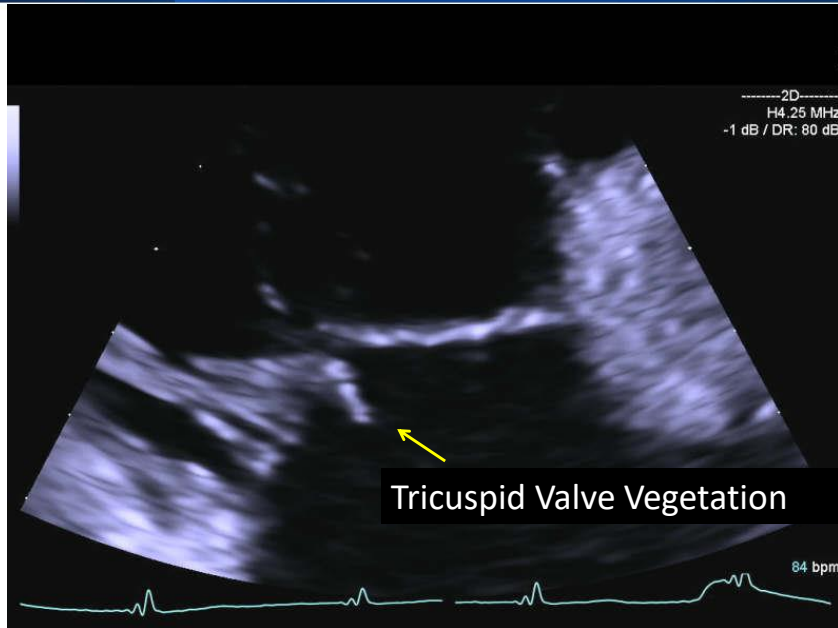


Endocarditis ?

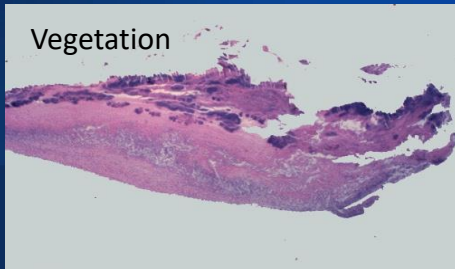
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Right Sided Endocarditis: IV Drug User

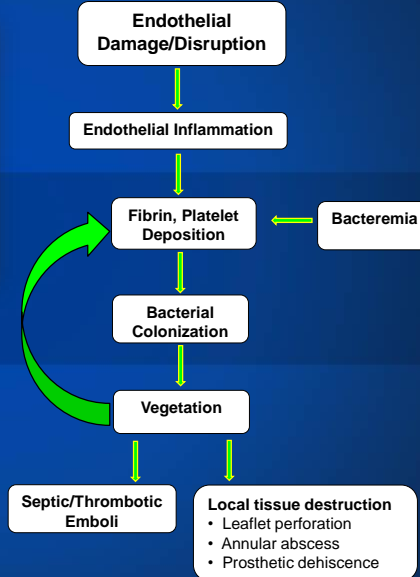


Pathogenesis of Infective Endocarditis



Vegetation
Fibrin and platelets (pink) mixed with inflammatory cells and bacterial colonies (blue).

Little and Ramlawi, ACCSAP 8 2012

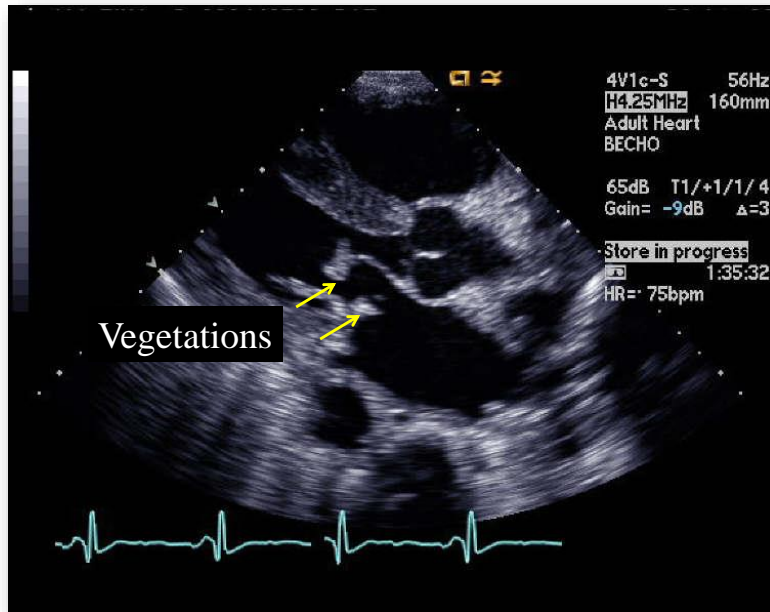


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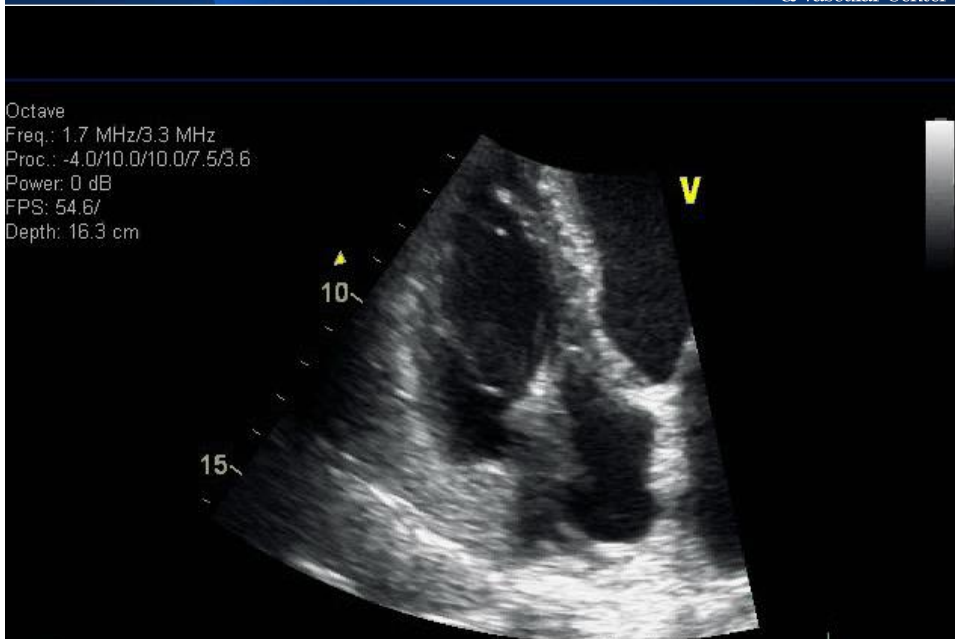


Fungal Native Valve Endocarditis

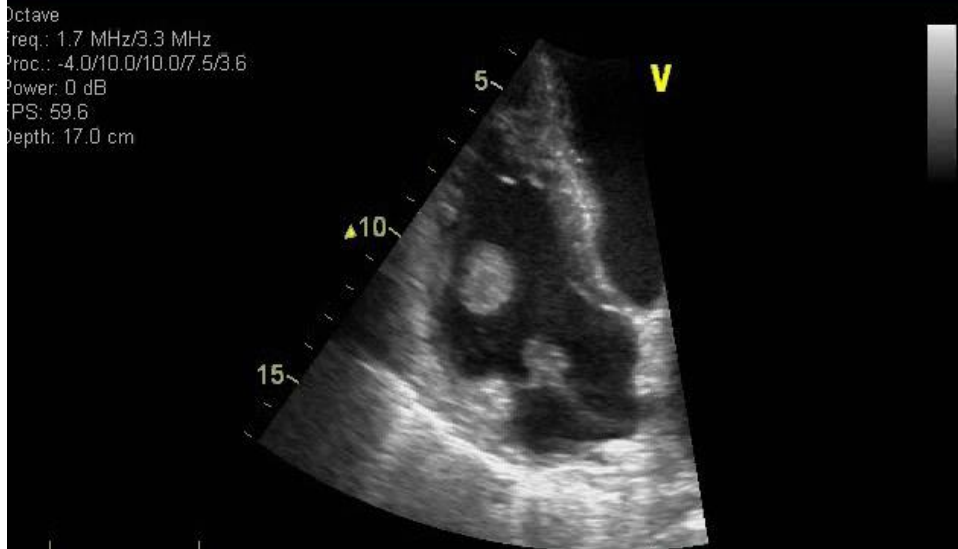


Pacemaker Problems

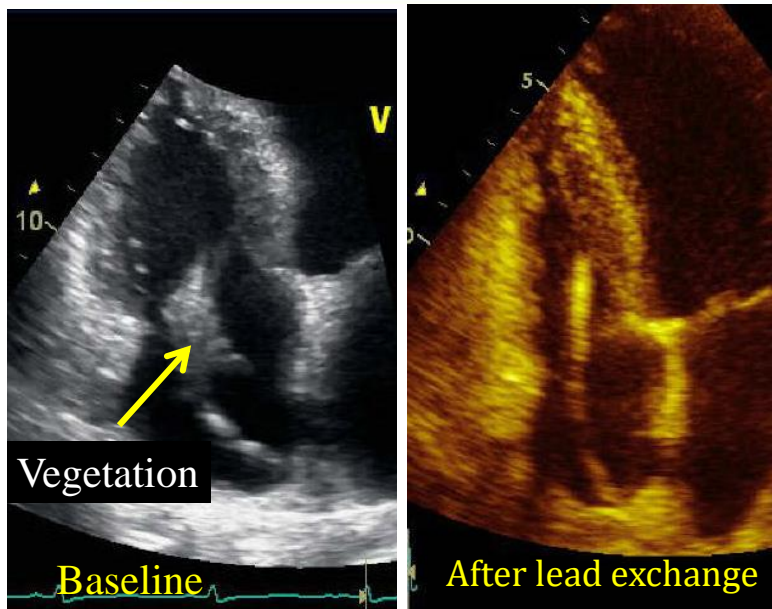
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Staph Aureus IE



Pacemaker lead endocarditis



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ECHO
S5-1
60Hz
Zoom

2D
HGen
Gn 56
C 49
2 / 3 / 4
100 mm/s

Ⓜ
P R
1.6 3.2



IV Drug user: S. Aureus

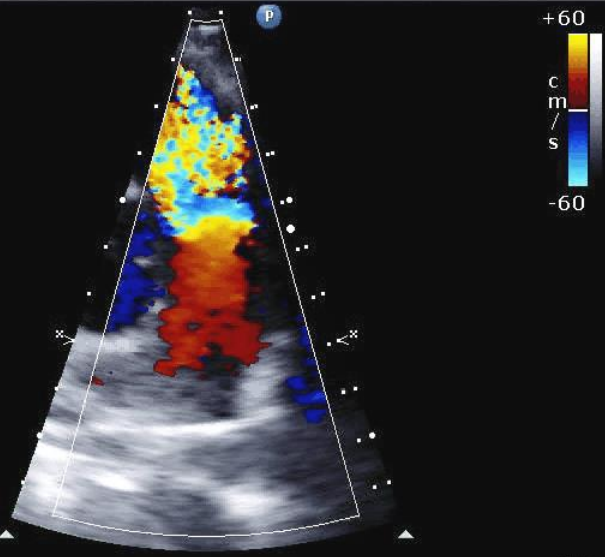
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DeBakey Heart
& Vascular Center

ECHO
S5-1
23Hz
Zoom

2D
HGen
Gn 56
C 49
2 / 3 / 4
100 mm/s

Color
2.5 MHz
Gn 50
4 / 5 / 1
Filtr Med

Ⓜ
P R
1.6 3.2



What is non-infectious endocarditis?

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Endocarditis?

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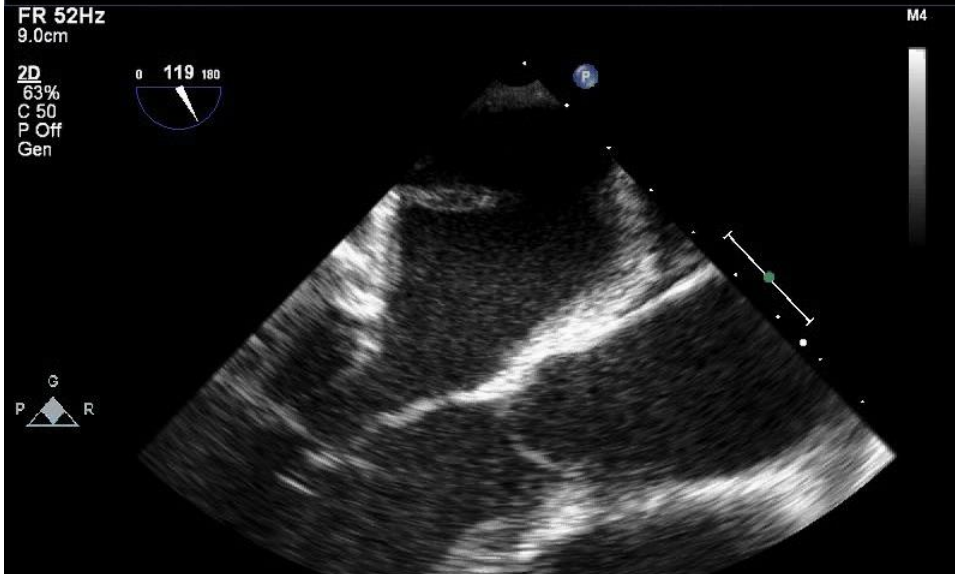


Libman-sacks endocarditis:

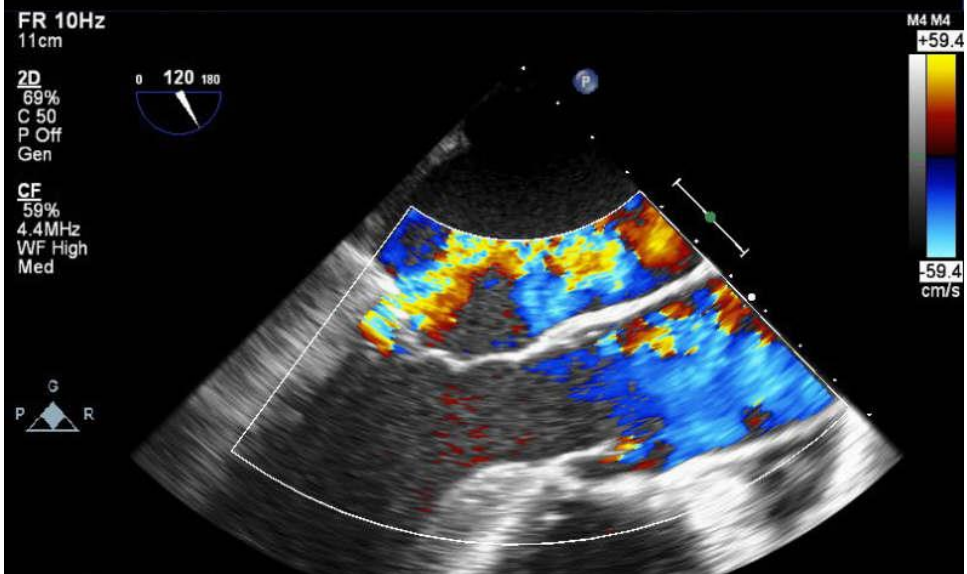
-flat, pale tan, spreading vegetations over the mitral valve surface and even on the chordae tendineae

What are the
common
complications of IE?

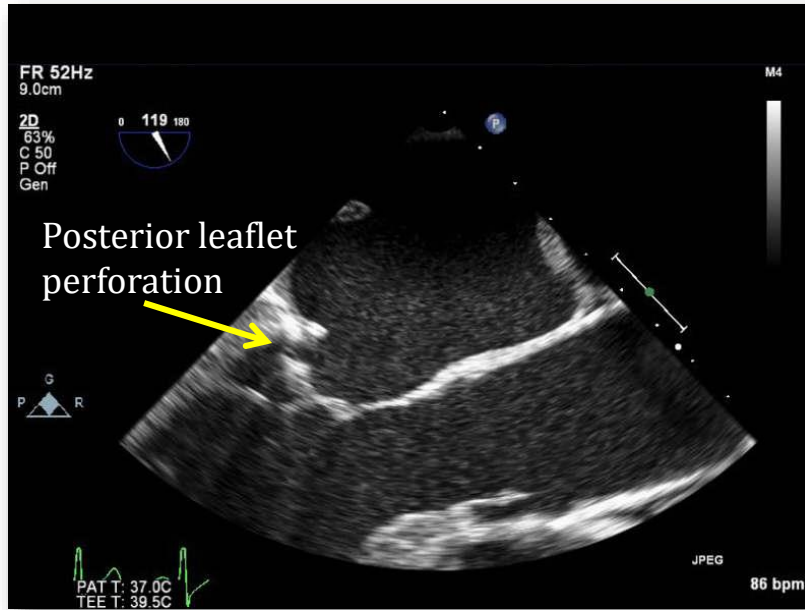
Veggie and...



Mechanism of MR?



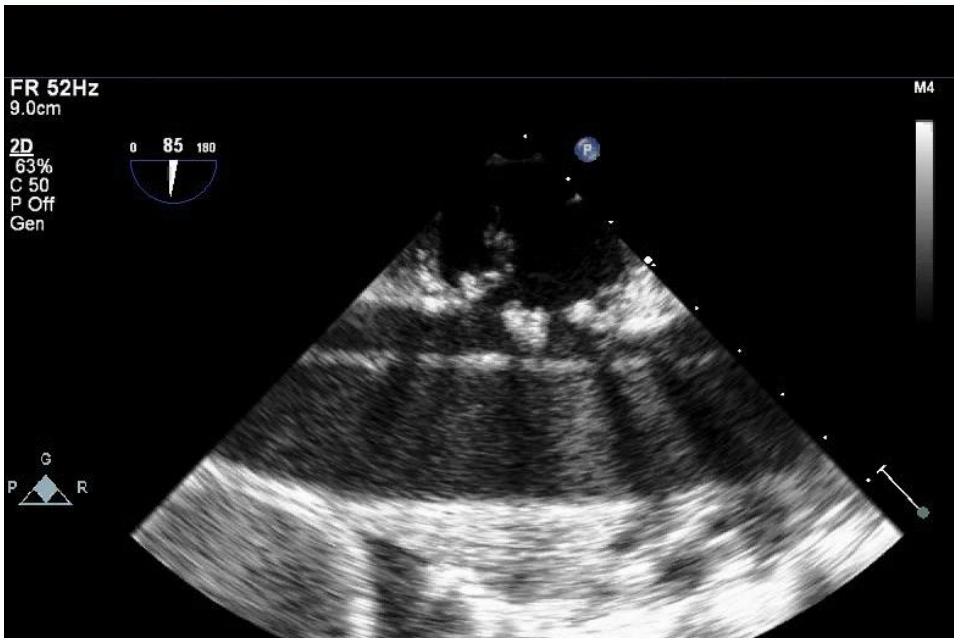
Mitral Valve Leaflet Perforation



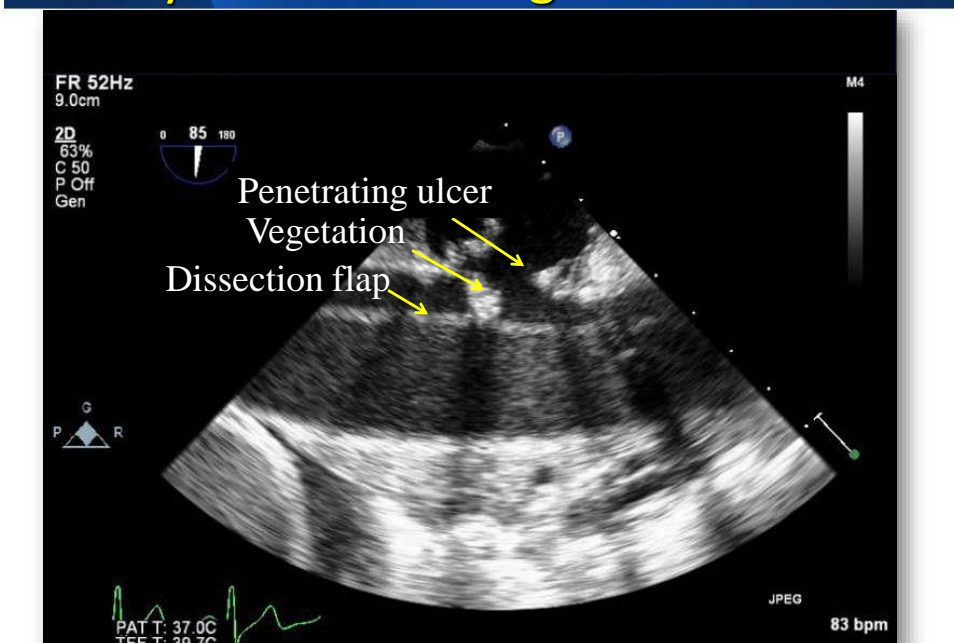
Mitral Leaflet Perforation



A little further along....Nasty Aorta

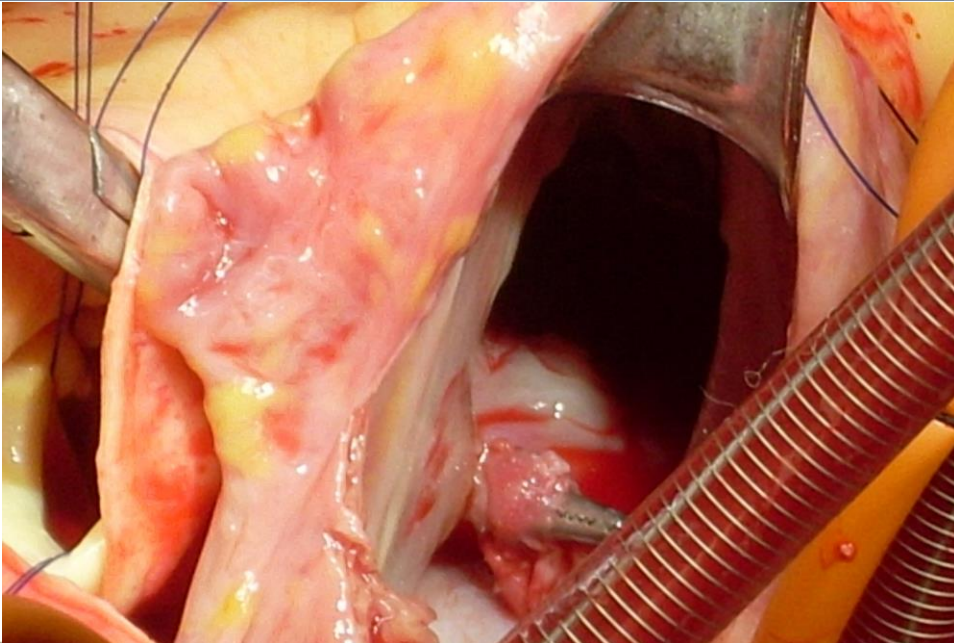


Mycotic Aortic Vegetation



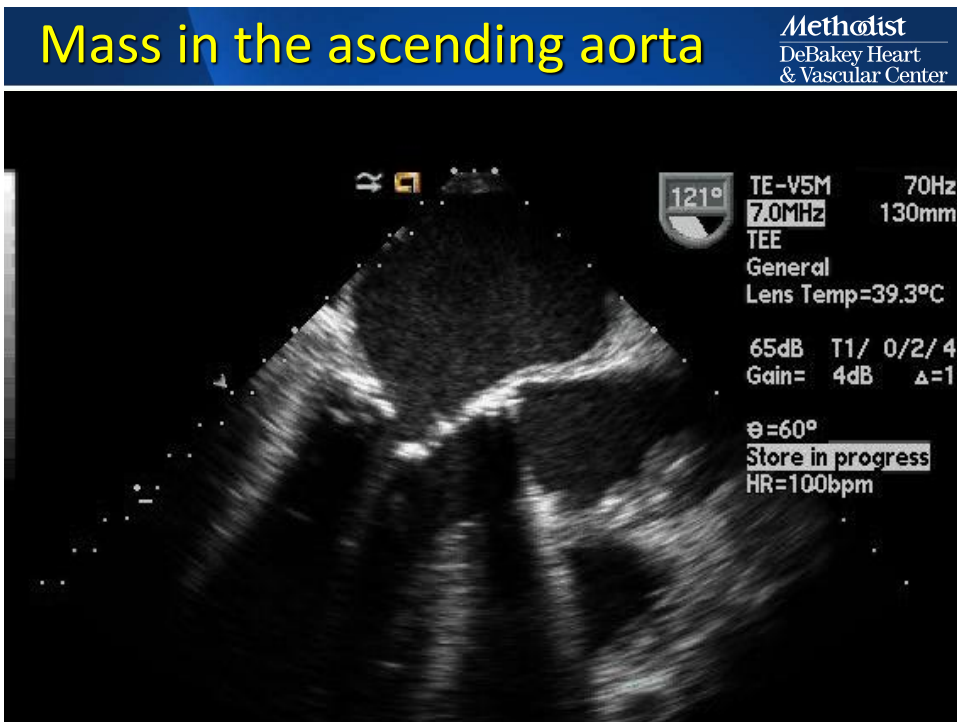
Aorta to RA Fistula

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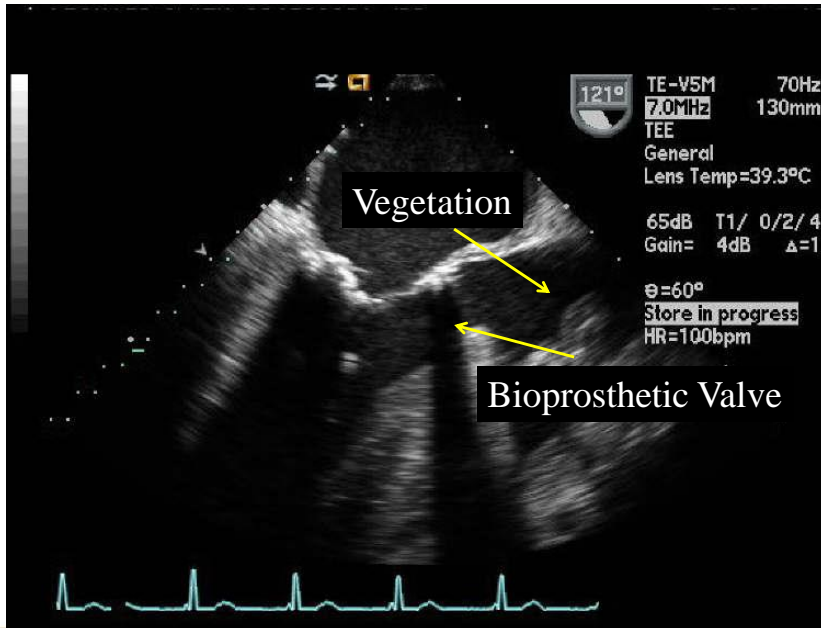


What is different
about prosthetic
valve endocarditis?

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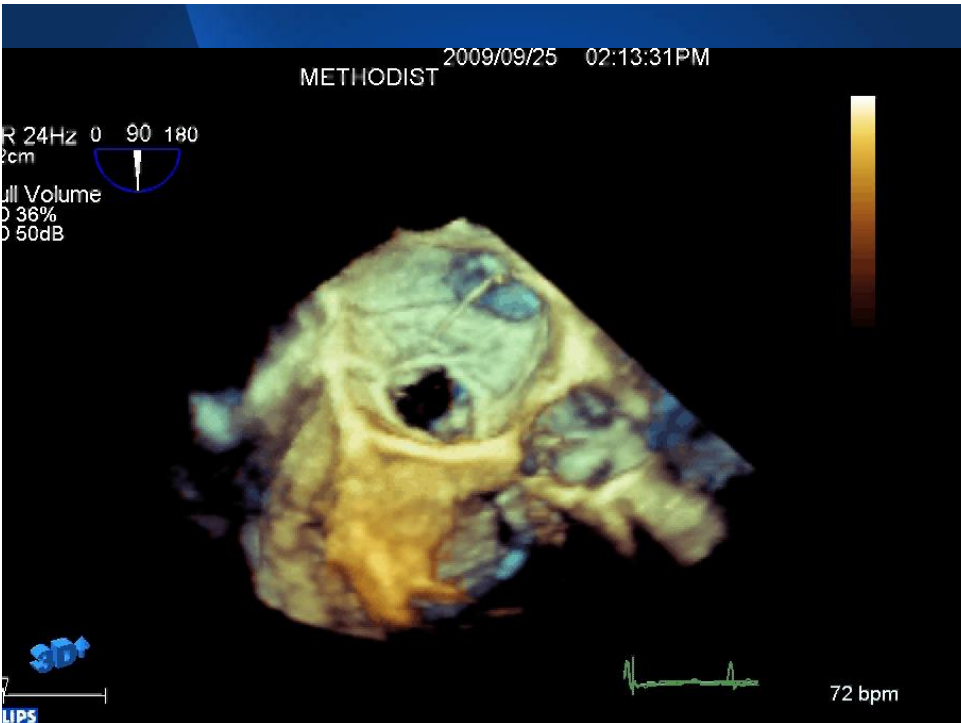
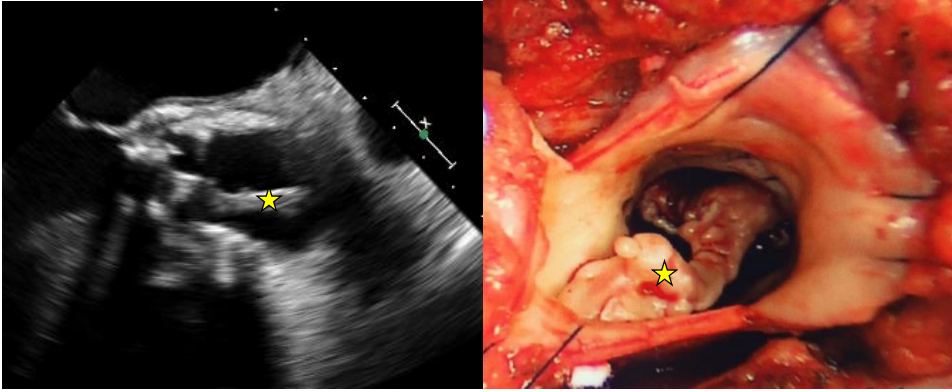
Fungal Prosthetic Valve Endocarditis



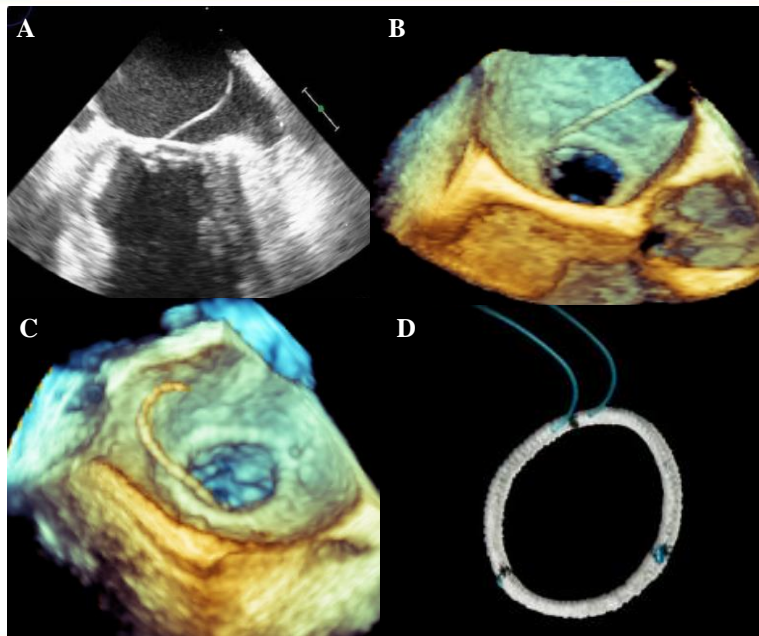
BioProsthetic AV Stenosis (4months after AVR)



Nocardia Endocarditis

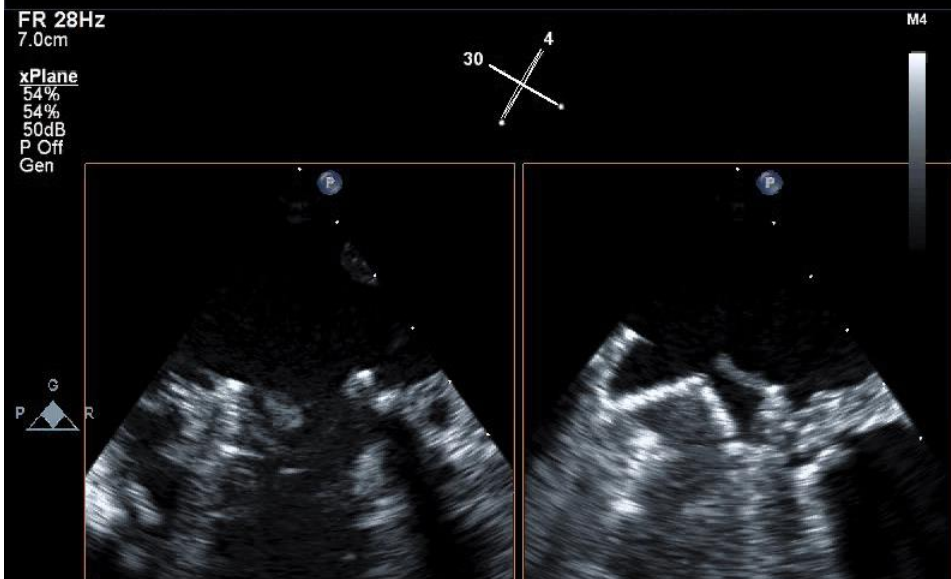


The Attune Adjustable Annulus Ring: ...Not a Veggie

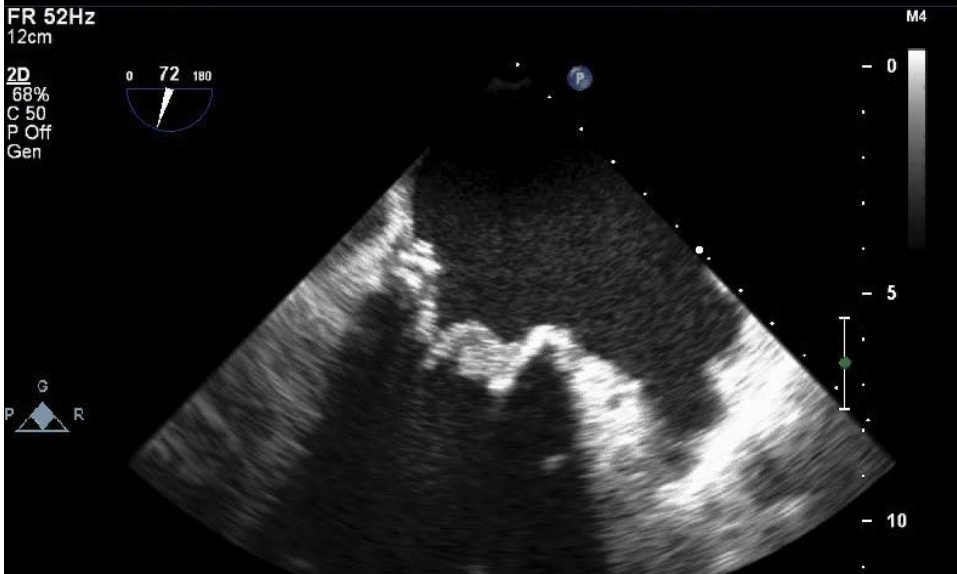


Prosthetic Valve Endocarditis

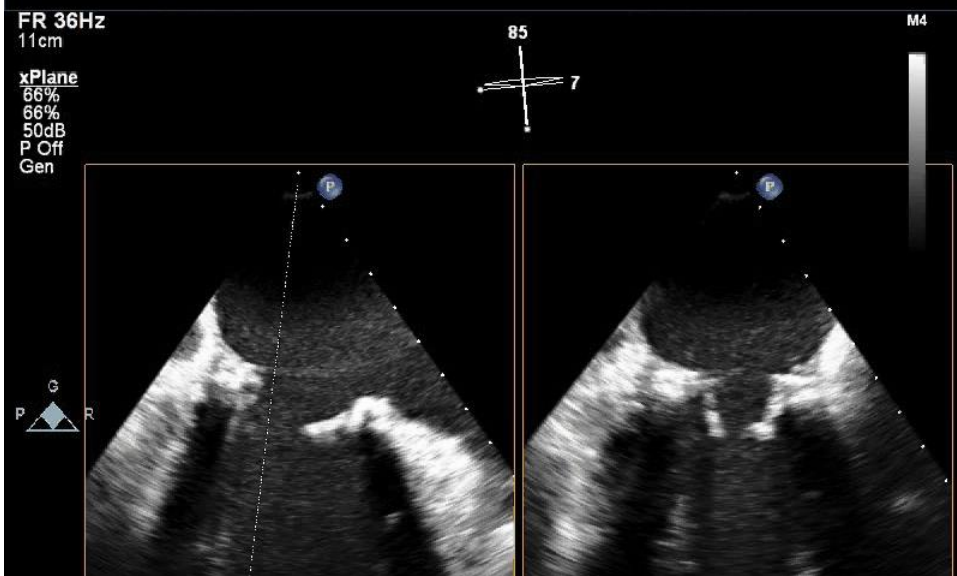
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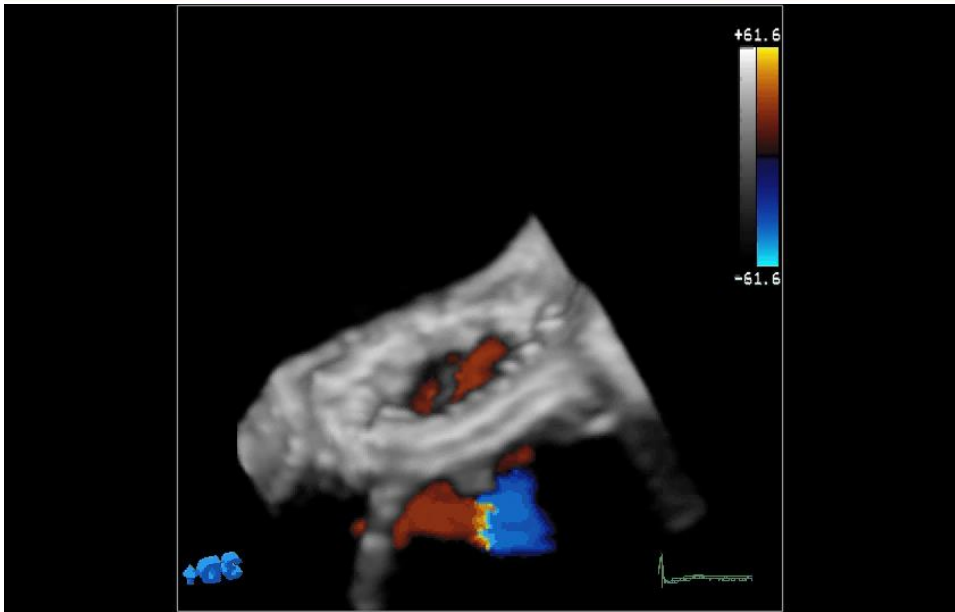
Bioprosthetic Mitral IE



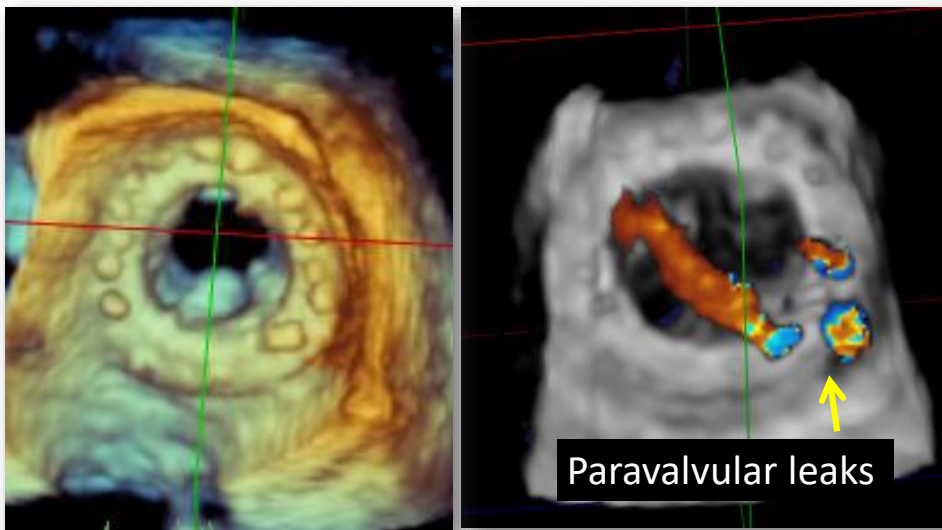
After 6 weeks of IV Abx



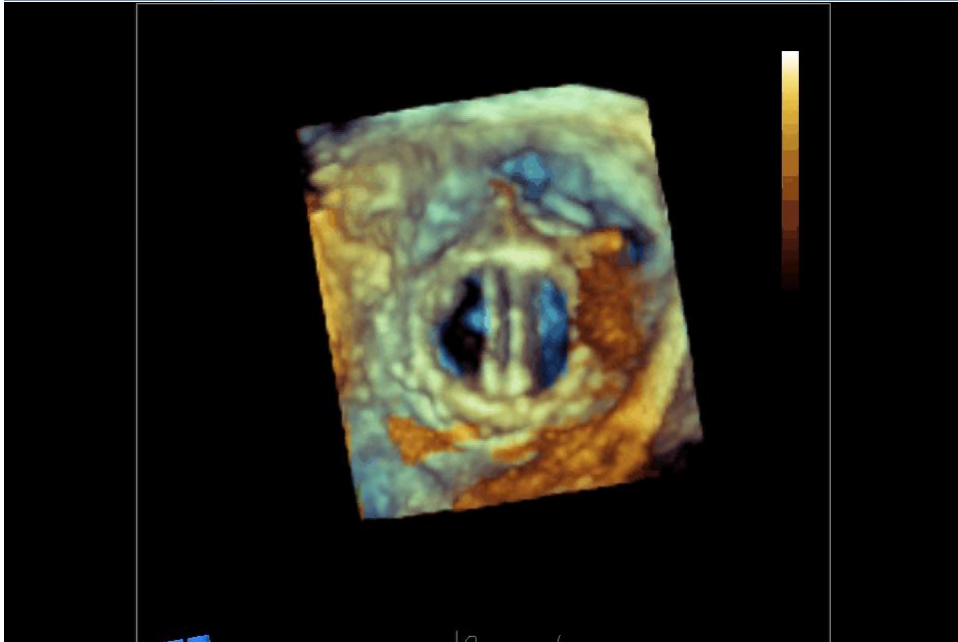
Paravalvular Defects



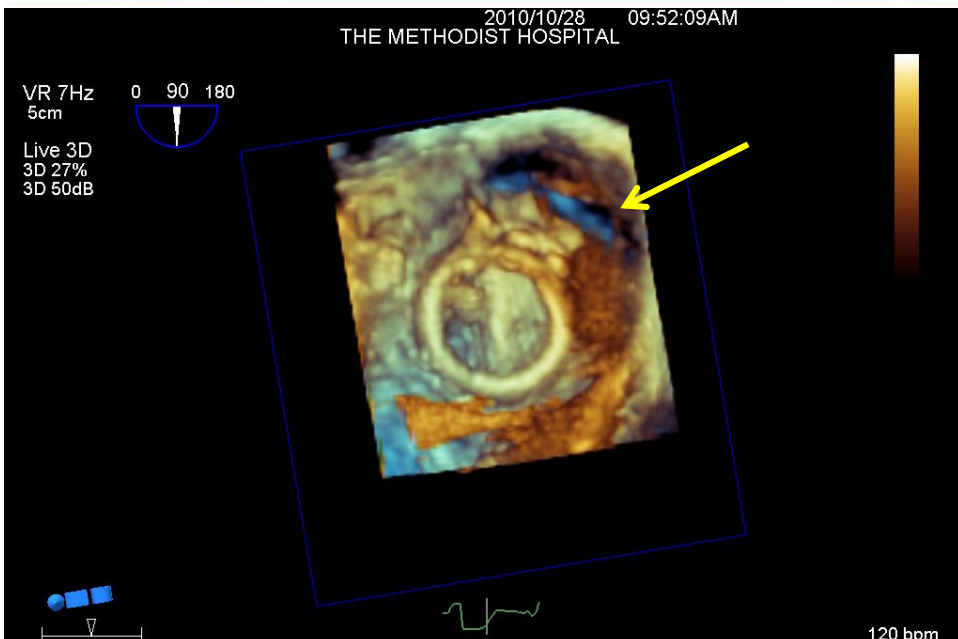
3D Echo to assess PVE treatment



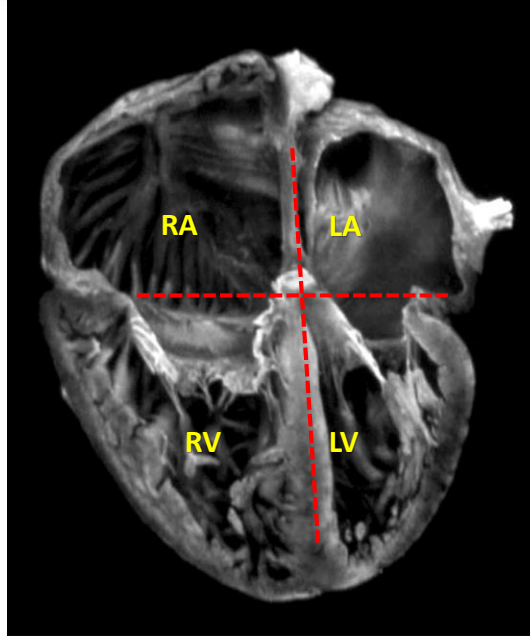
No Veggie – all clear?



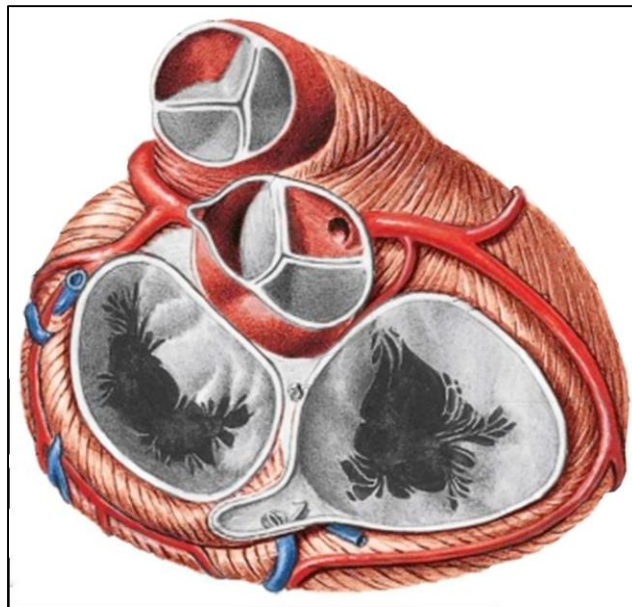
Valve Dehiscence: Culture negative



The Cardiac Crux (Fibrous Skeleton)



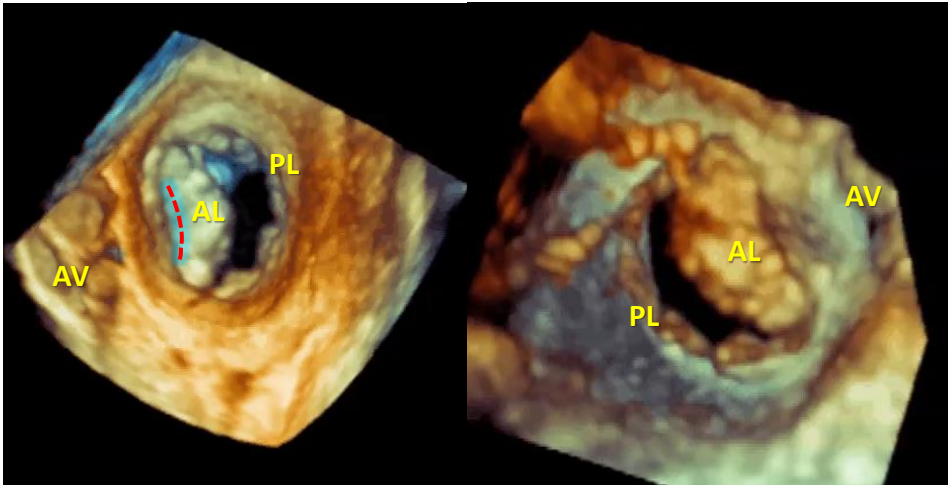
Heart Anatomy



The intervalvular fibrosa

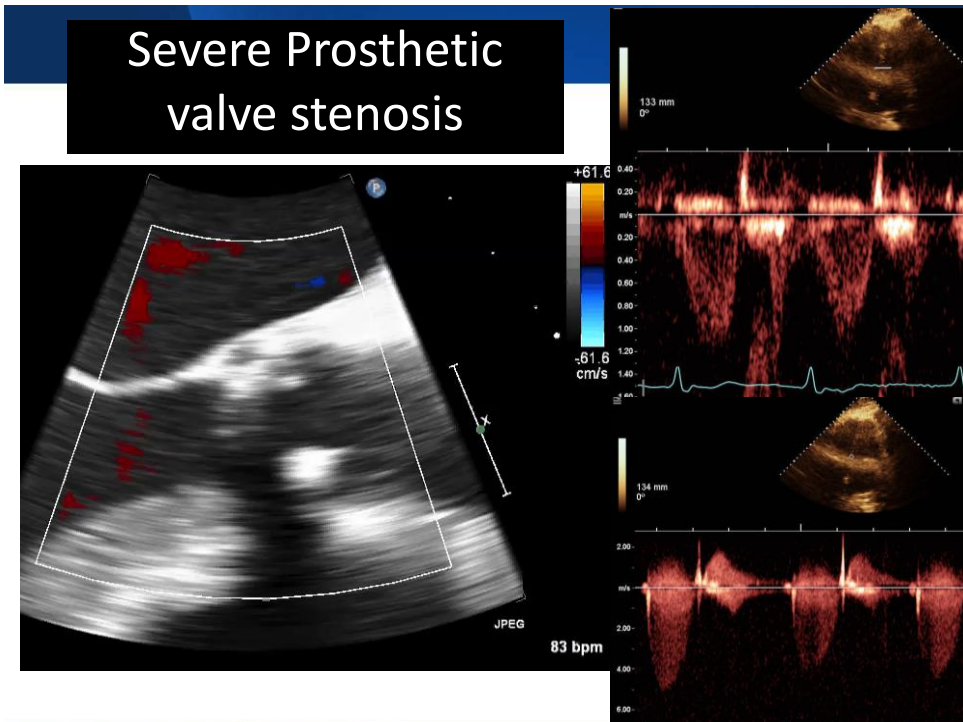
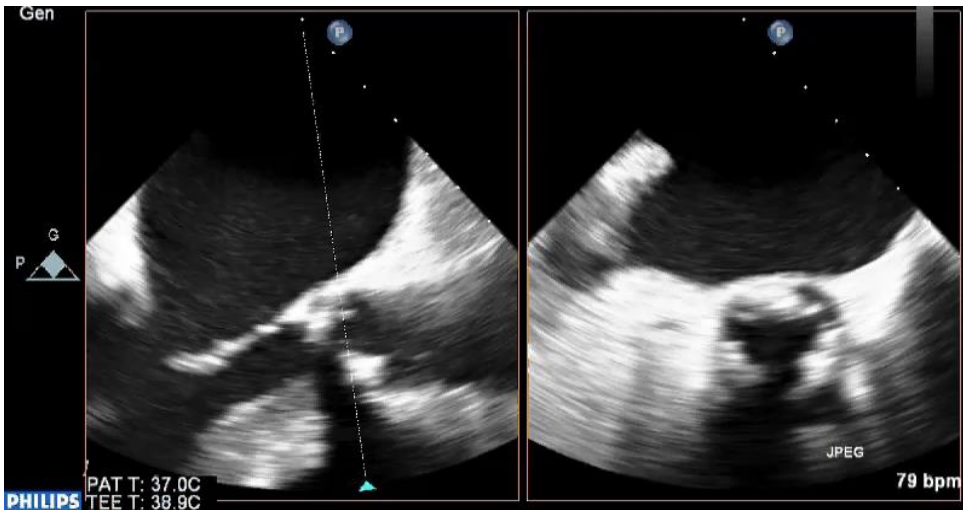
View from above

View from below



75 year old male; BioAVR 2 years ago
Now with fever/chills



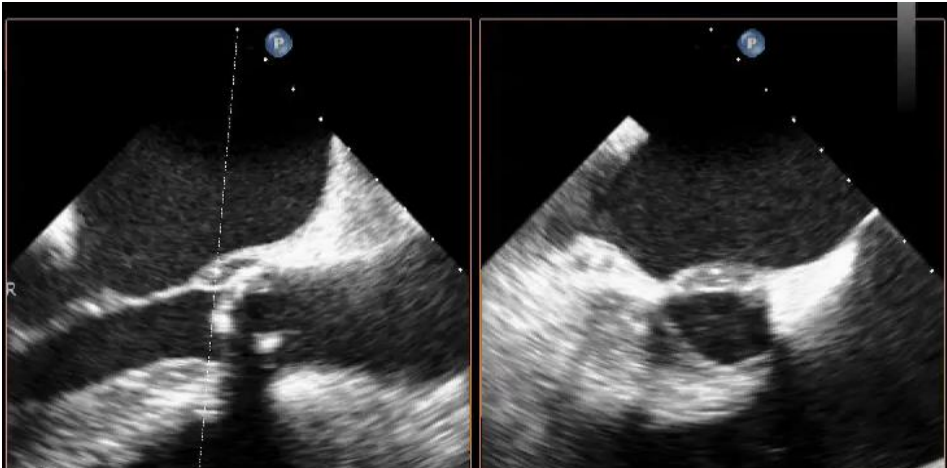


IV Abx for 2 months; then repeat TEE



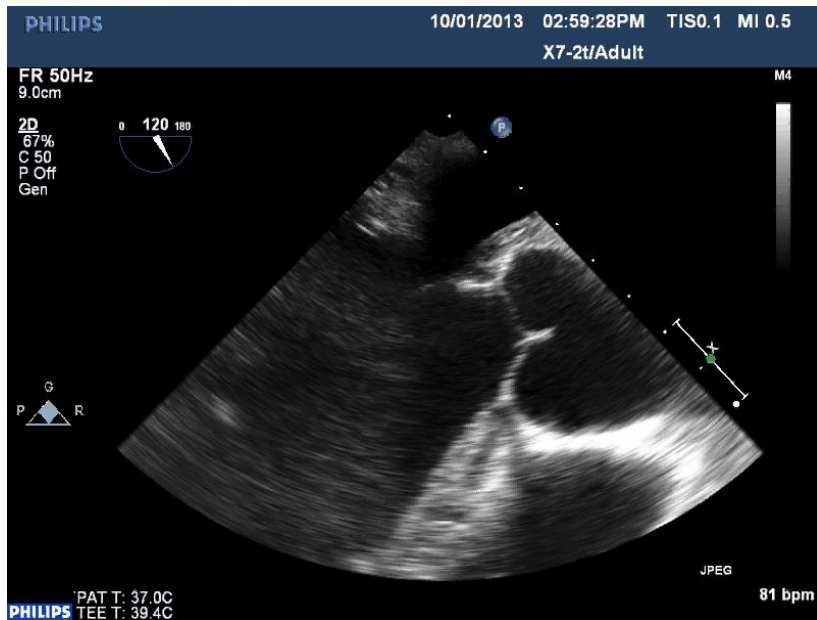
Great news! We don't see the mass.

Sent for Redo AVR

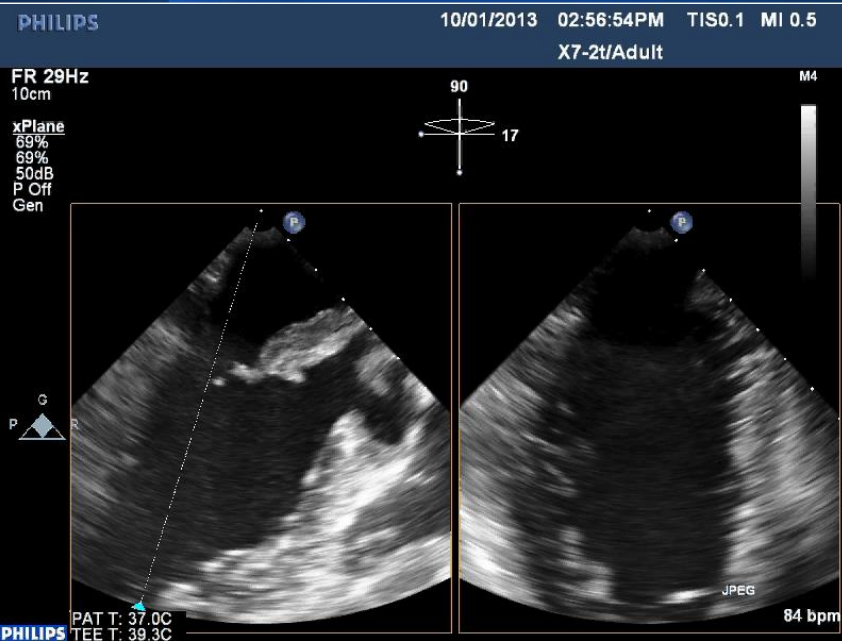


Evolving peri-prosthetic abscess ☹️

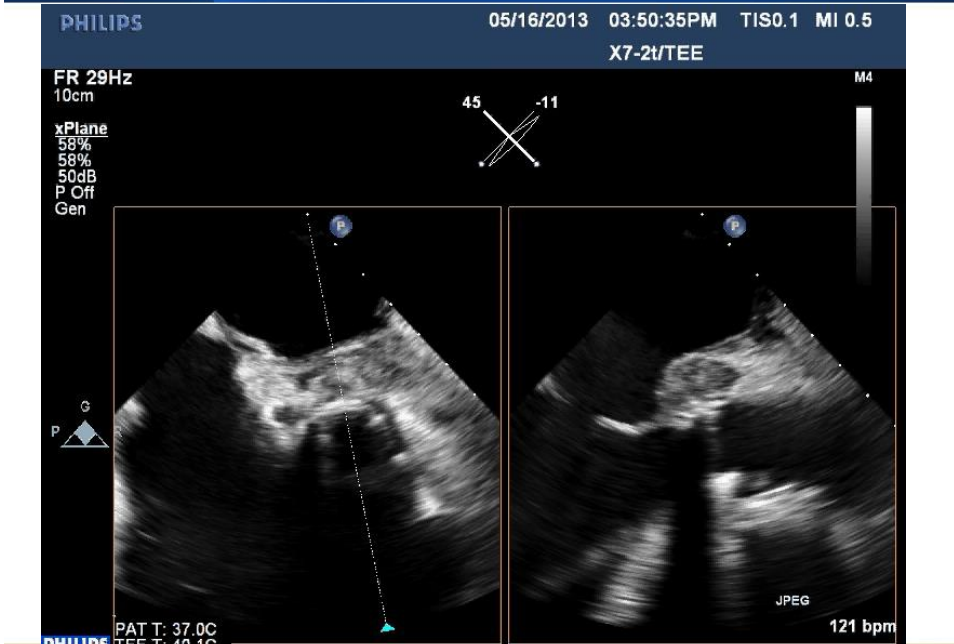
Aortic Root Abscess



Aortic Root & LV Abscess

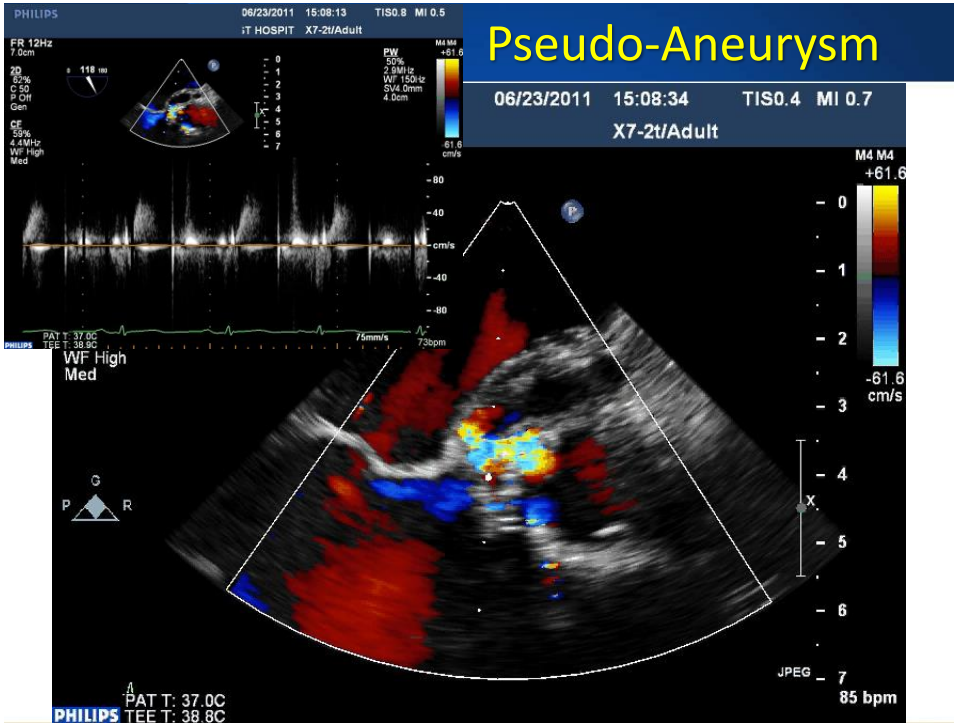


Classic Aortic Root Abscess

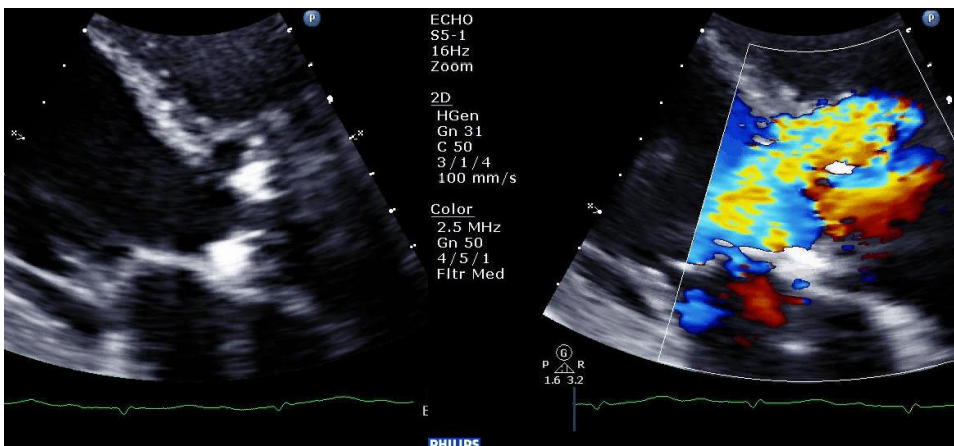


LVOT Pseudo-Aneurysm





LVOT –Aortic Root Fistula



Summary

- **Endocarditis** is inflammation of the endocardium.
- Usually involves the valves but other structures can be affected (septum, chordae, intracardiac devices)
- Characterized by a prototypic lesion, the **vegetation**; a mass of platelets, fibrin, microorganisms, and inflammatory cells.
- Echo is the mainstay for diagnosis and treatment assessment.



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