



15th Asian-Pacific Congress on Doppler Echocardiography
BEXCO, Busan, Republic of Korea, April 15-16, 2011



Interesting Cases of Pericardial Disease

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Contents

- Recurrent pericardial effusion
- Constrictive physiology
- Pros for and cons against steroid use



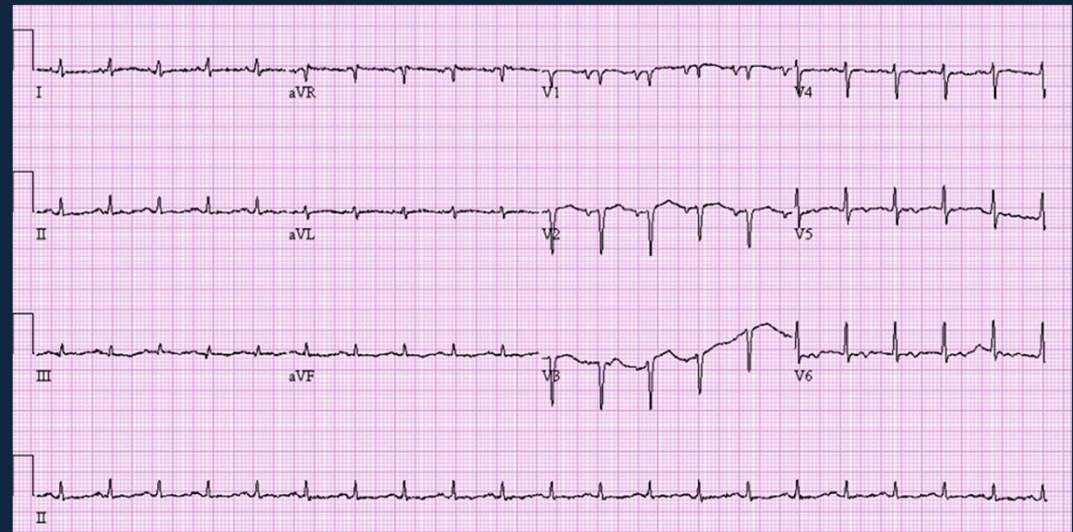
Case 1

Should I have used steroid in
this patient?

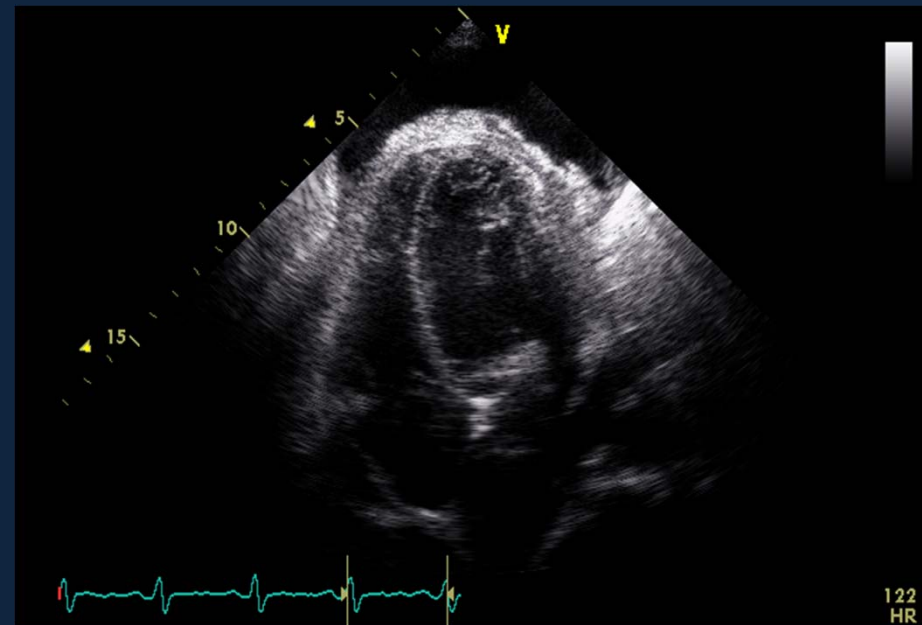
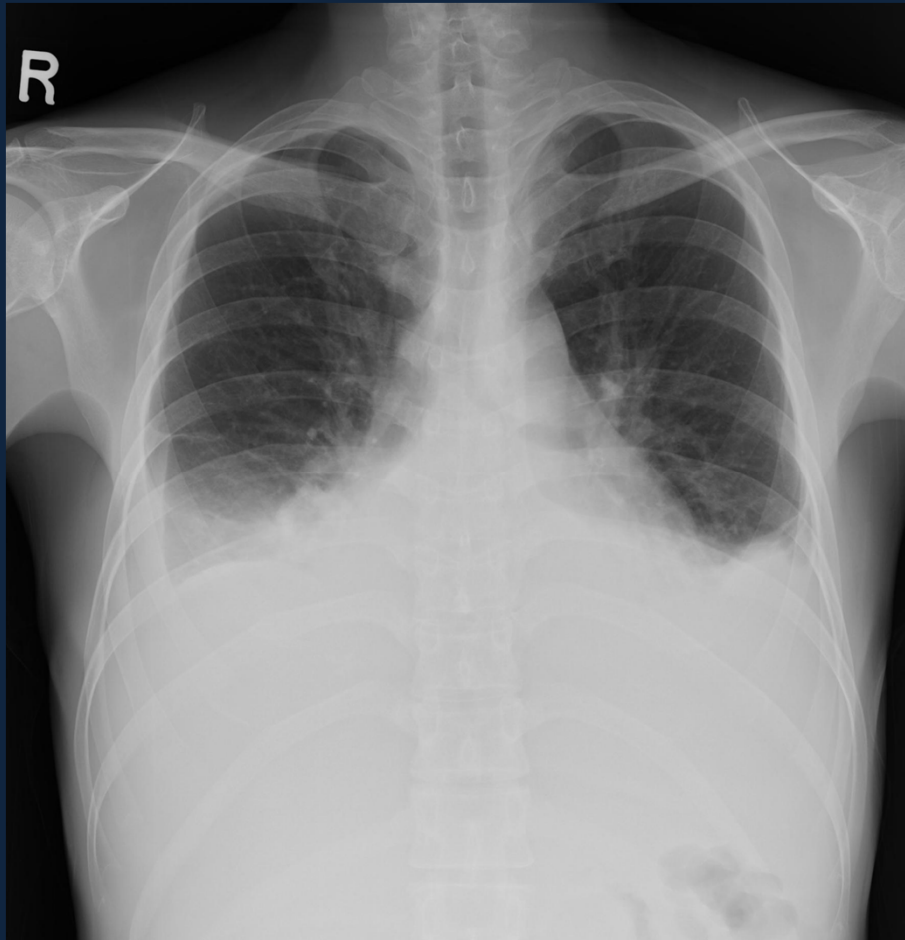


April 2008

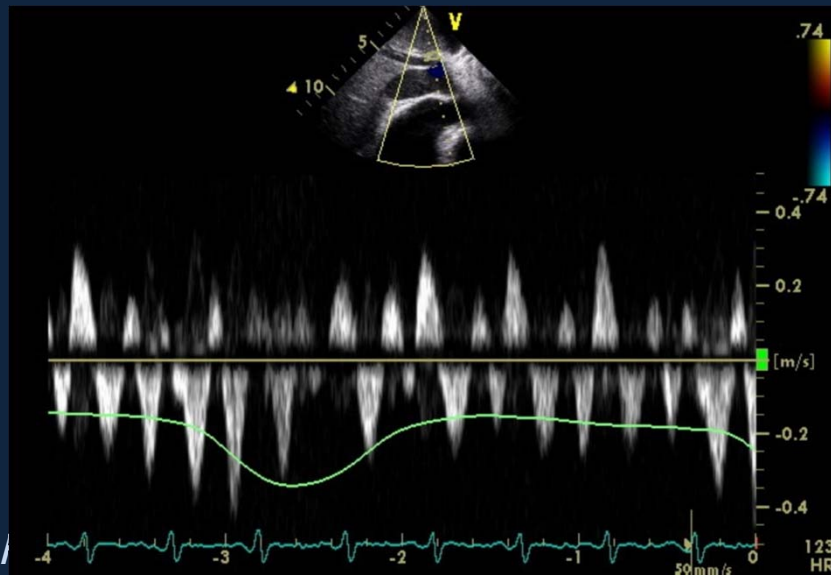
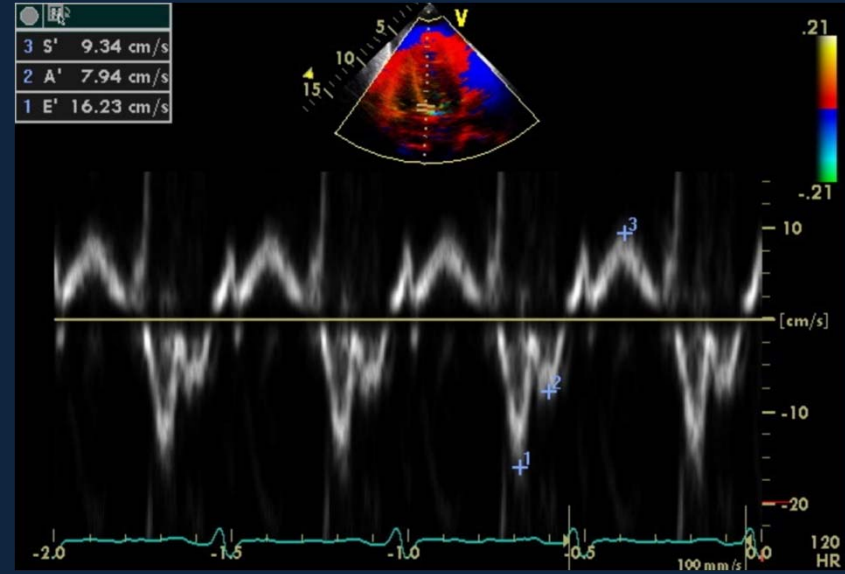
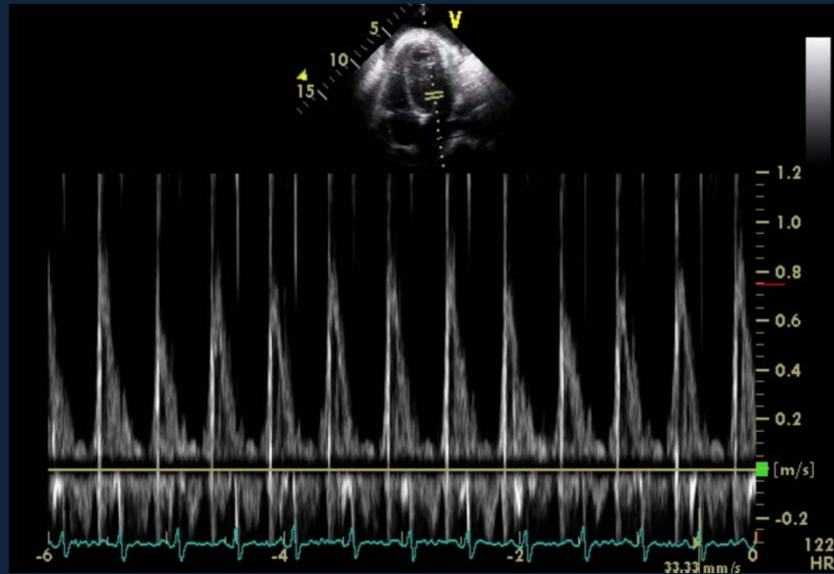
- 39 year old male
- Admitted for dyspnea, started 2 months ago
- Associated with night sweat, BWt. loss 5kg/Mo.



Effusion at Apex with Septal Bouncing



Constrictive Physiology



Pleural Tapping

- RBC 954, WBC 360 (lympho-dominant, 73%)
- Negative for malignancy
- Tbc PCR(-), AFB S/C(-)
- Protein 3.5
- LDH 98
- Glc 134
- pH 7.45
- Serum protein 7.6

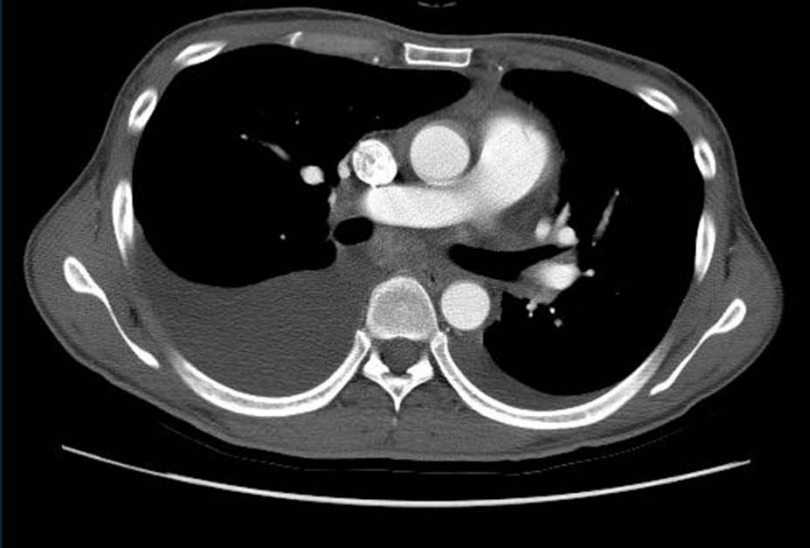
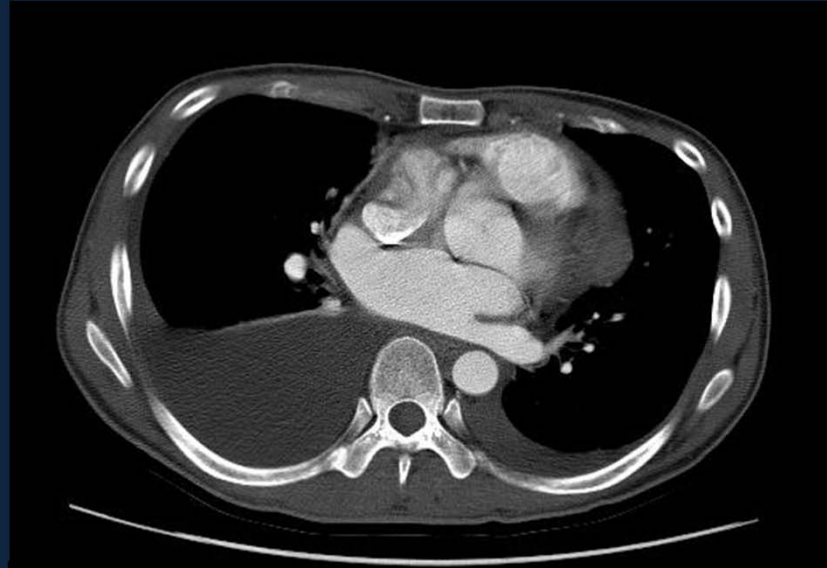
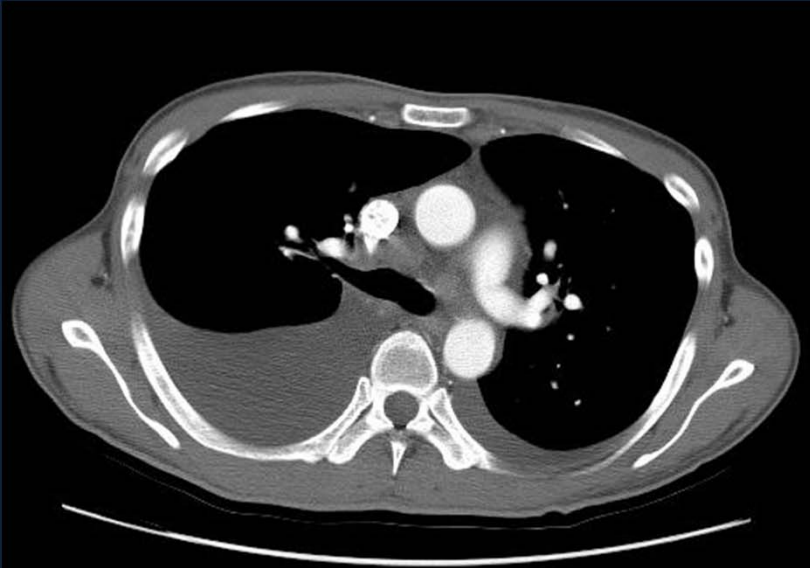


What would you do next?

1. Pericardiocentesis?
2. Pleural biopsy?
3. Other imaging studies?
4. Wait & close observation?



Chest CT



What's your consumptive Dx.?

1. Malignancy?
2. Tuberculosis?
3. Rheumatologic?
4. Others???



Regular F/U with HREZ+steroid



S

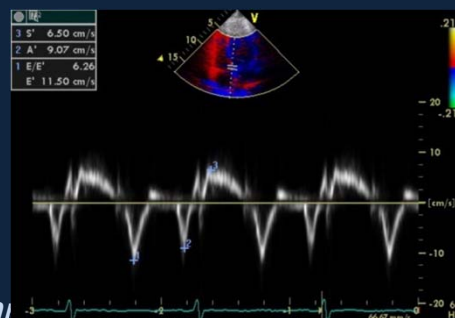
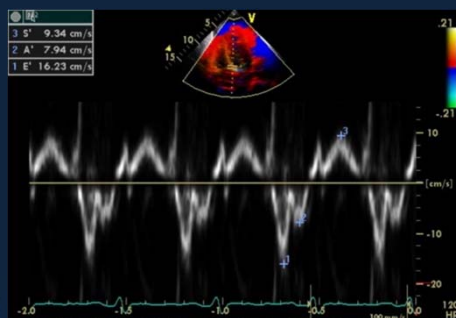
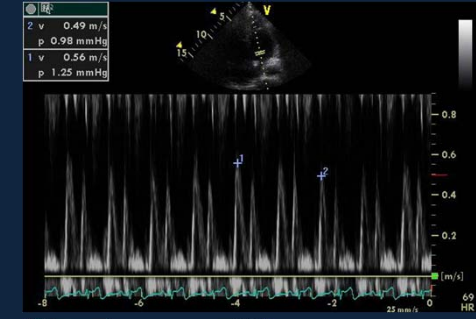
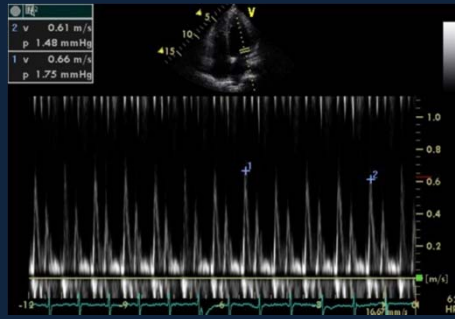
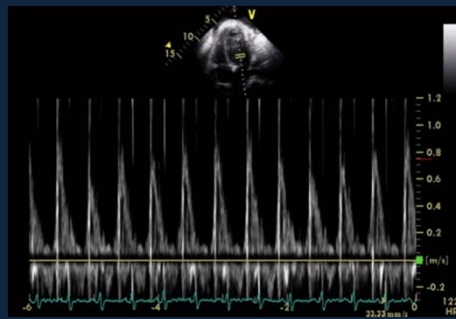
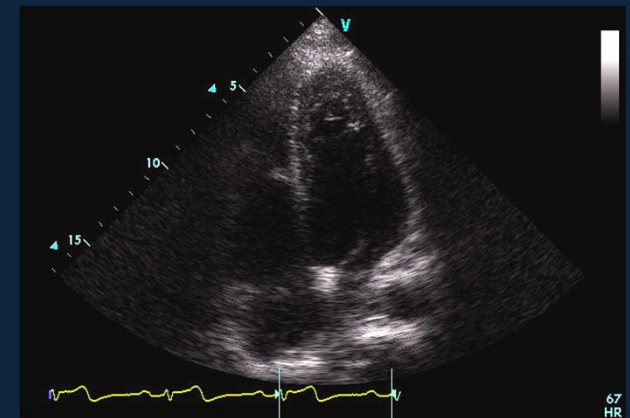
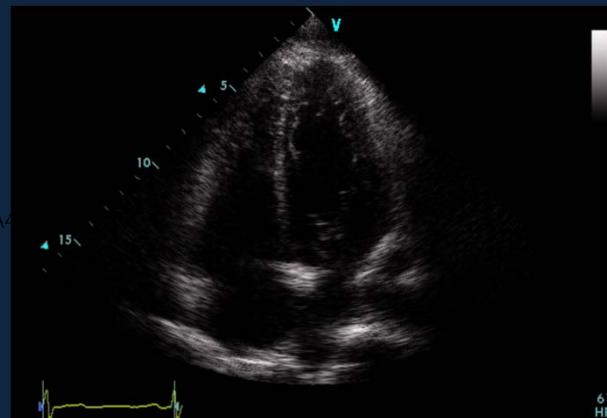
ospital Ca

Improved Constriction after Steroid

April 2008 (initial)

December 2008

September 2009



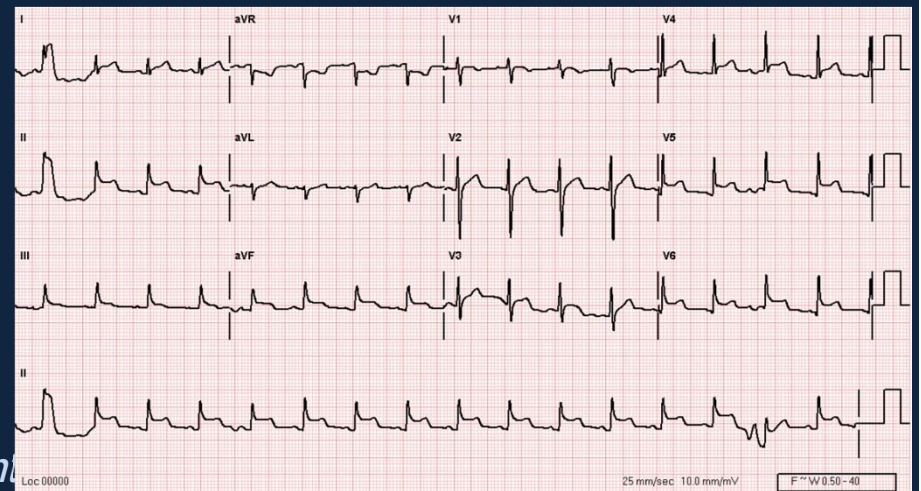
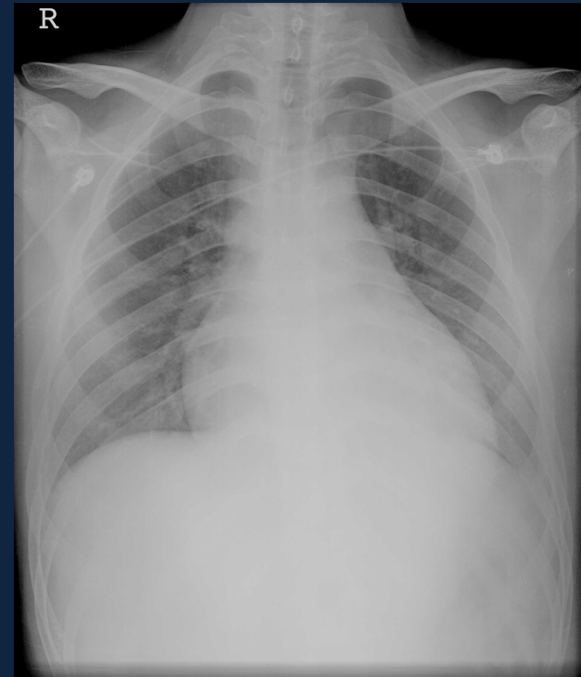
Case 2

Should I have used steroid in
this patient?

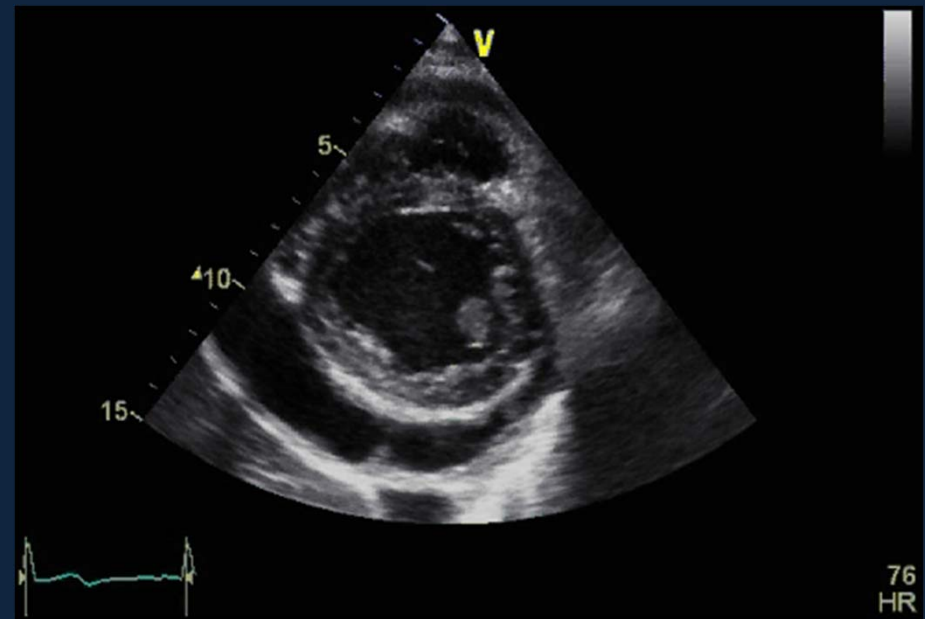
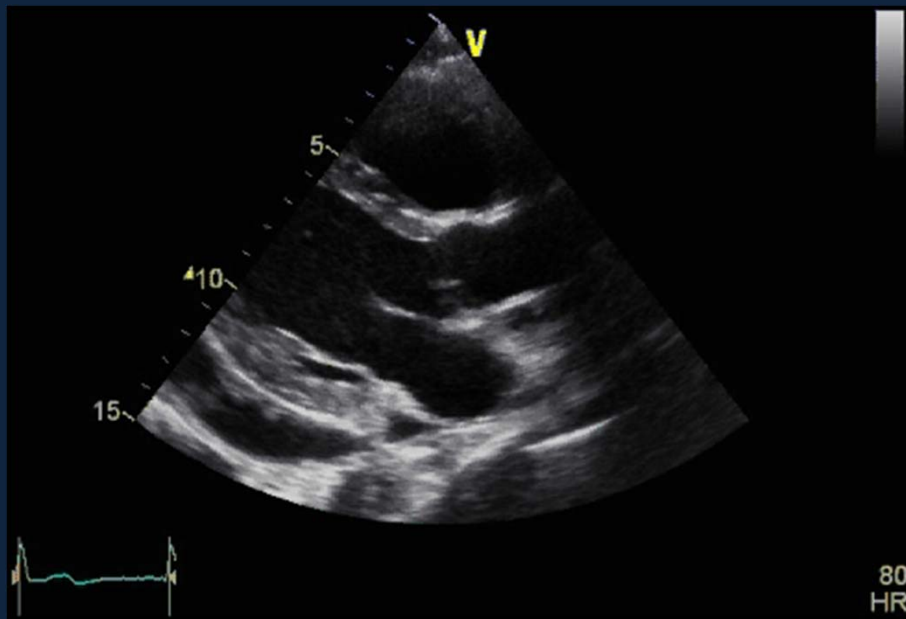


February 2010

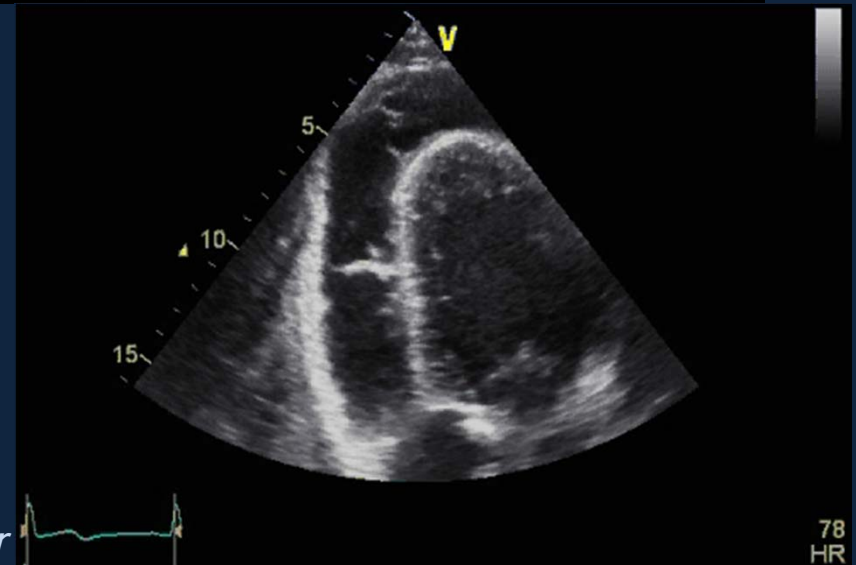
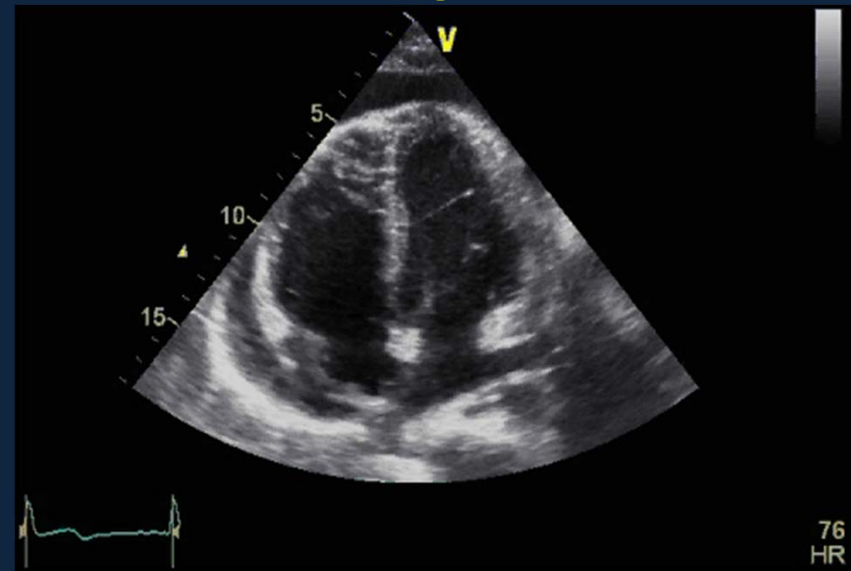
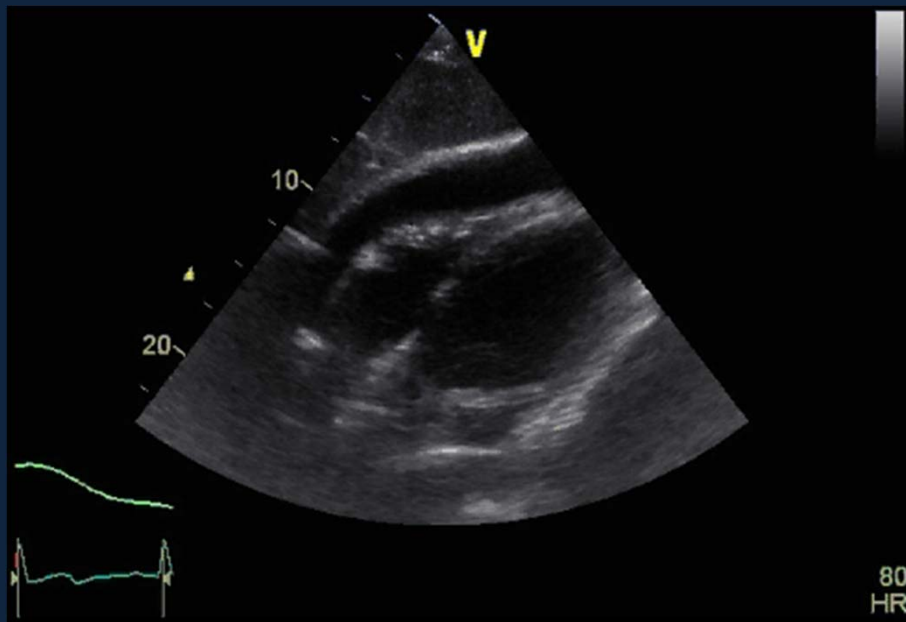
- 21 year old soldier
- Non-smoker
- Previously healthy
- Admitted for evaluation of dyspnea and intermittent fever for 2wks.



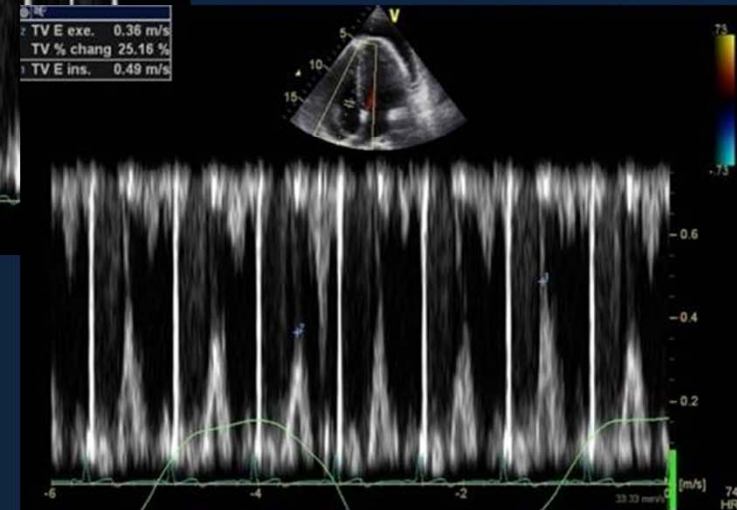
Large amount of pericardial effusion



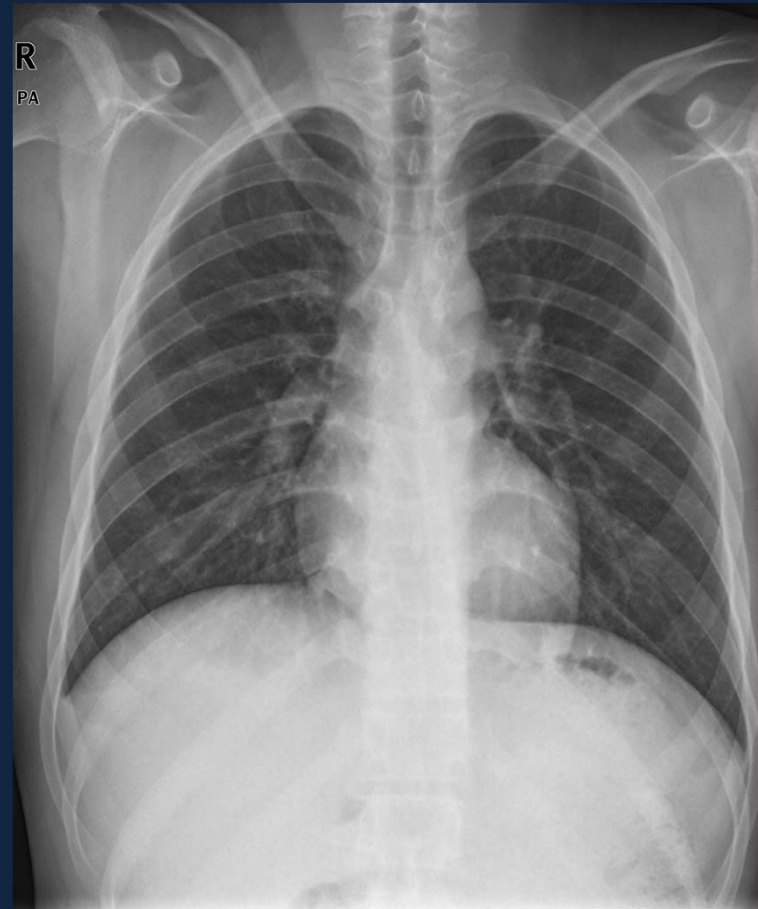
Partial Inflammatory Change (Fibrinous adhesions)



Tamponade Physiology

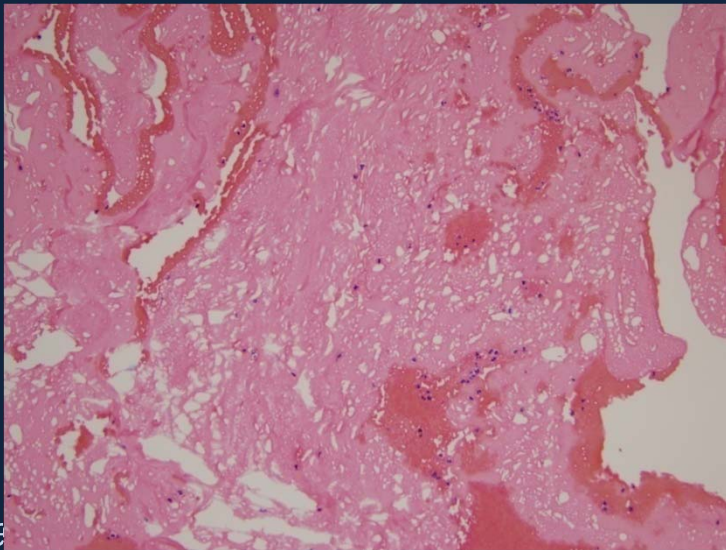


Therapeutic Pericardiocentesis



Pericardial Fluid Analysis

- Yellowish pericardial fluid but not sticky
- LDH 937, ADA 21
- Protein 3.96
- RBC >1000, WBC 900, mainly poly-dominant (78%)
- Negative culture results for Tbc
- Tbc PCR : negative
- Cytology : negative for malignant cells



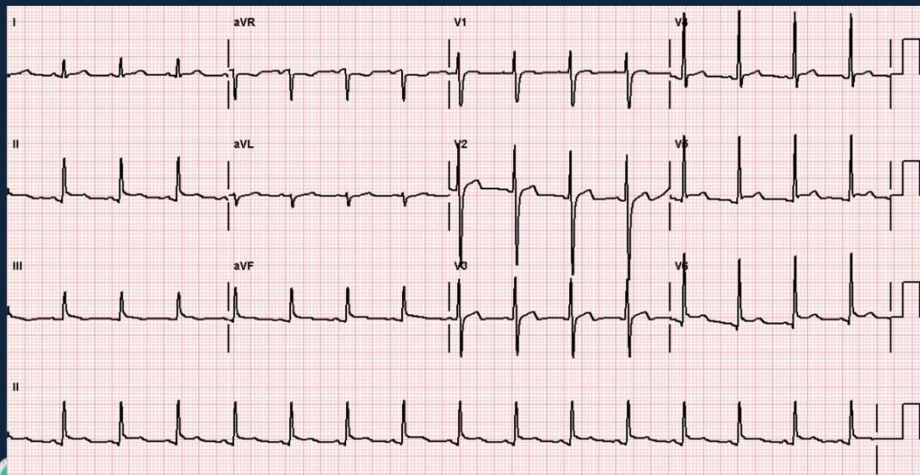
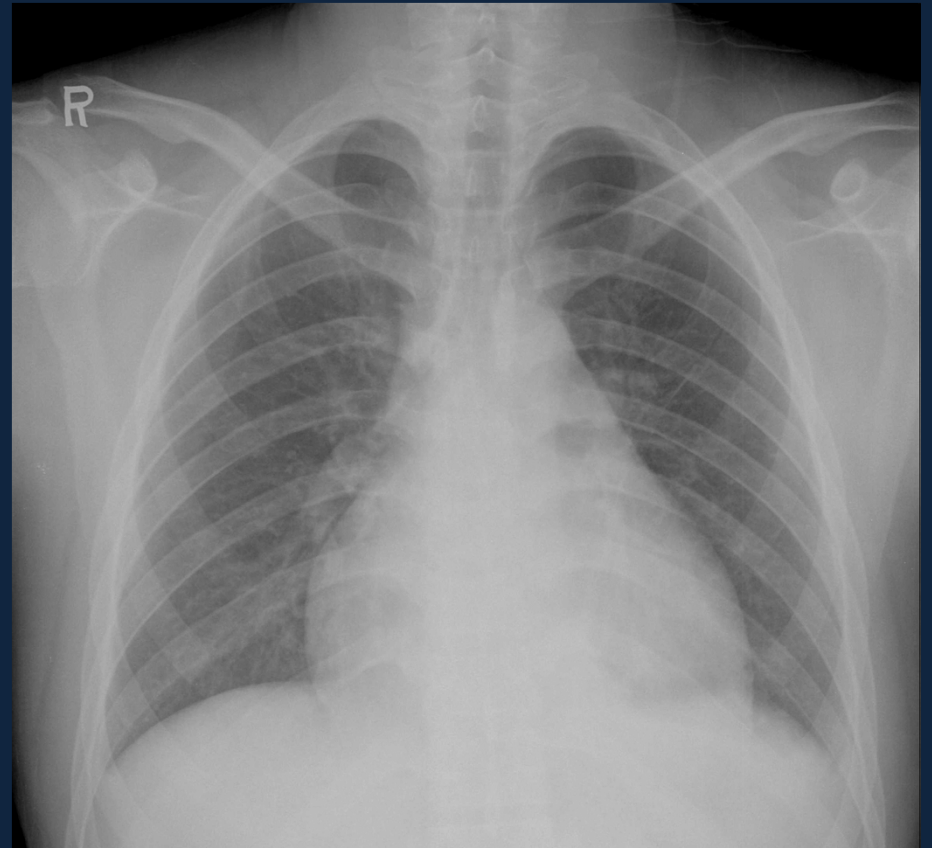
What's your consumptive Dx?

1. Viral pericarditis?
2. Tuberculous pericarditis?
3. Malignancy?
4. Any thing else?

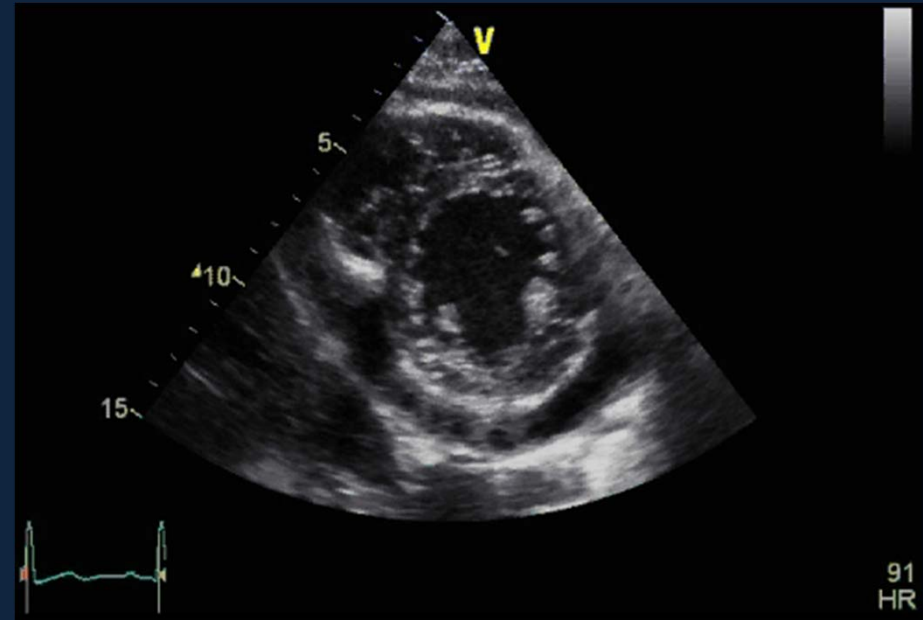
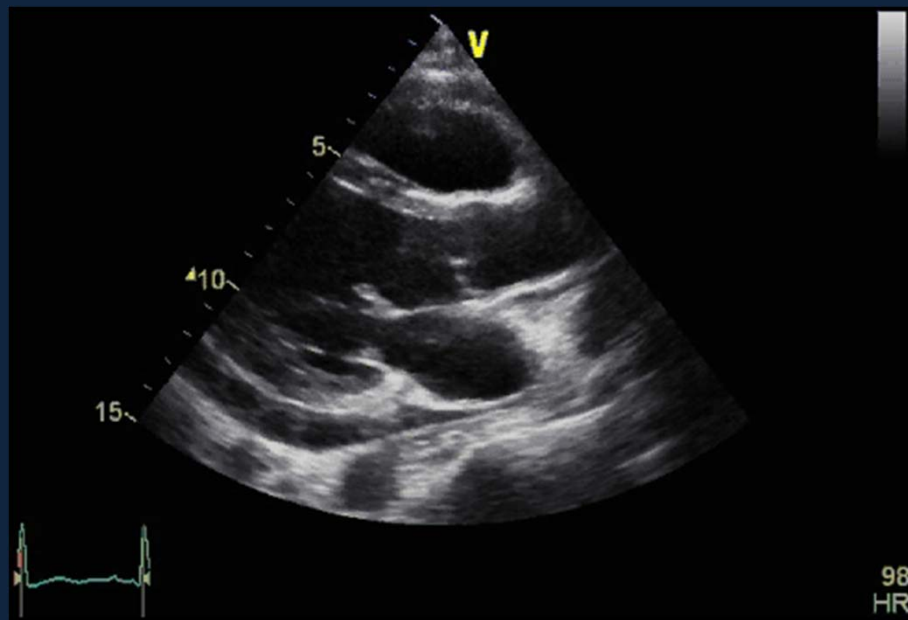


March 2010

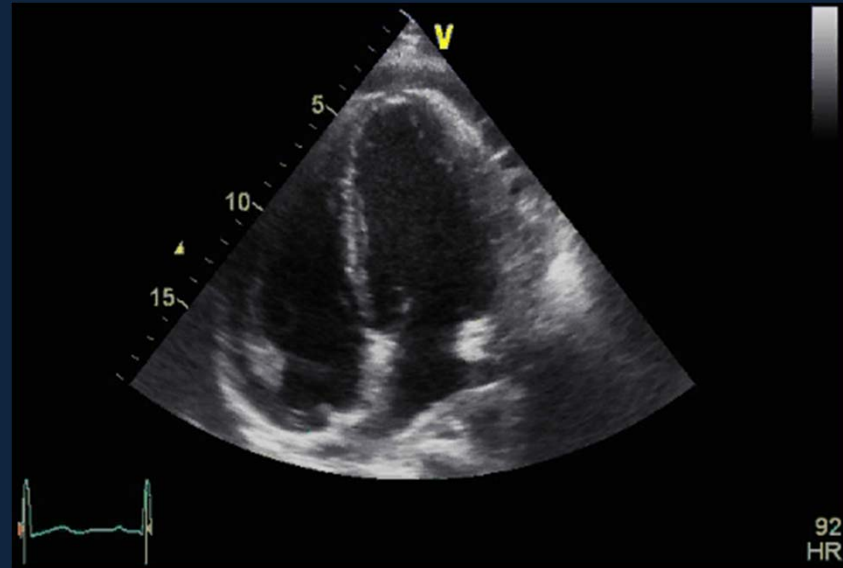
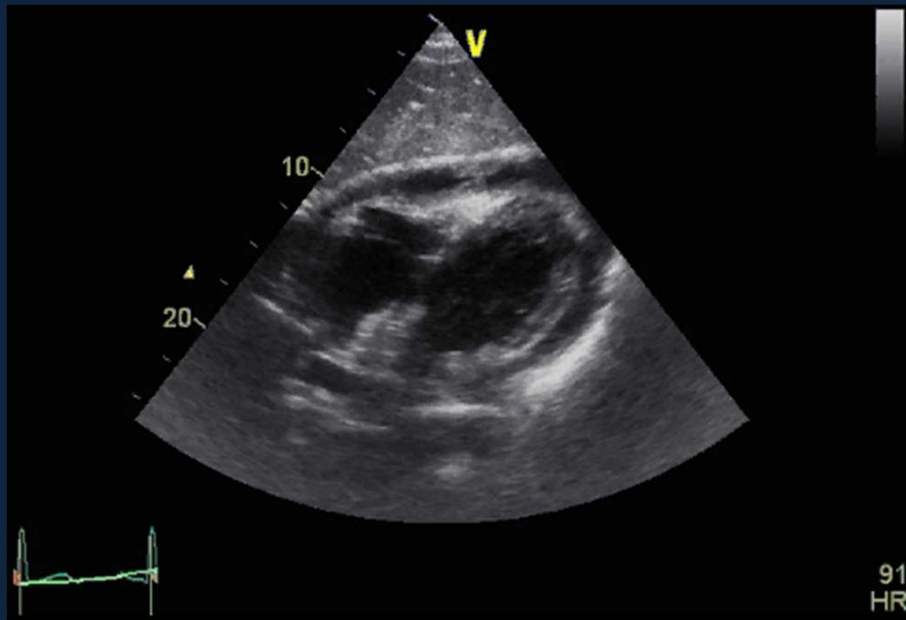
- Readmitted for pleuritic chest pain & progressive dyspnea (NYHA Fc III) after discharge



Recurrent Pericardial Effusion



Same Features as Before
(Slightly progressive infl. features)

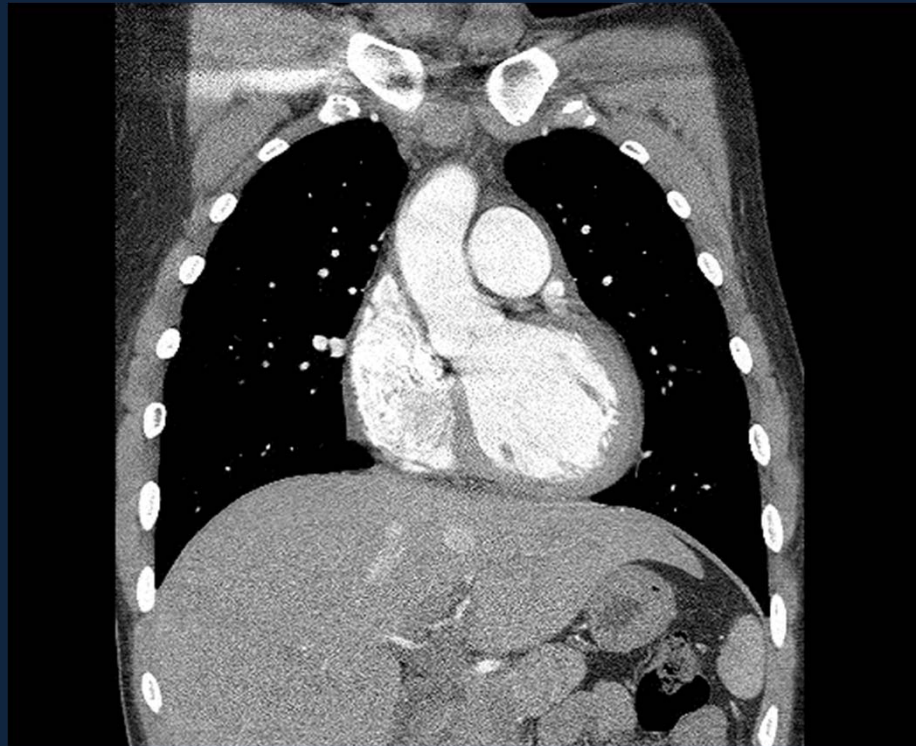
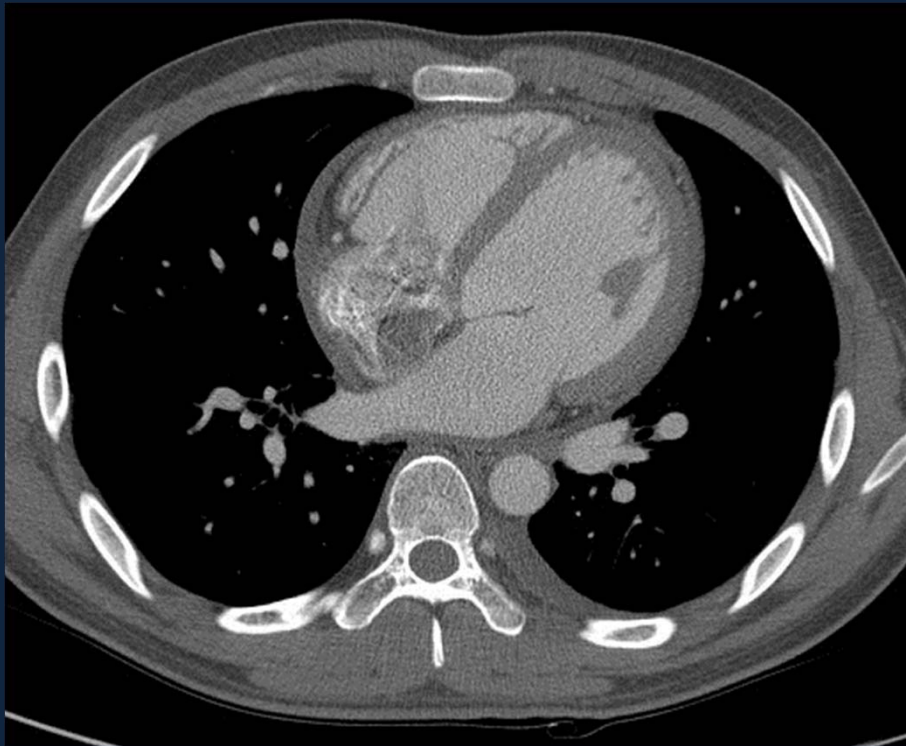


Pleurocentesis done

- Yellowish pleural fluid
- LDH 124, ADA 11
- Protein 4.36
- AFB(-), Tbc PCR(-)
- RBC 140, WBC 3040 (mainly macrophage dominant, 58%)



Chest CT for further evaluation

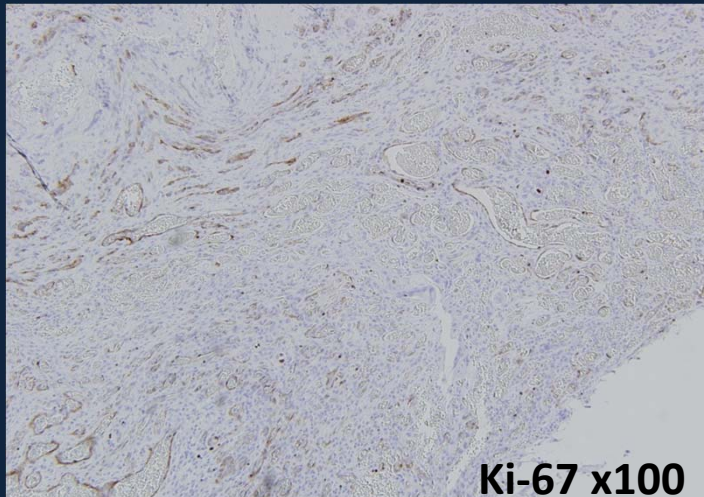
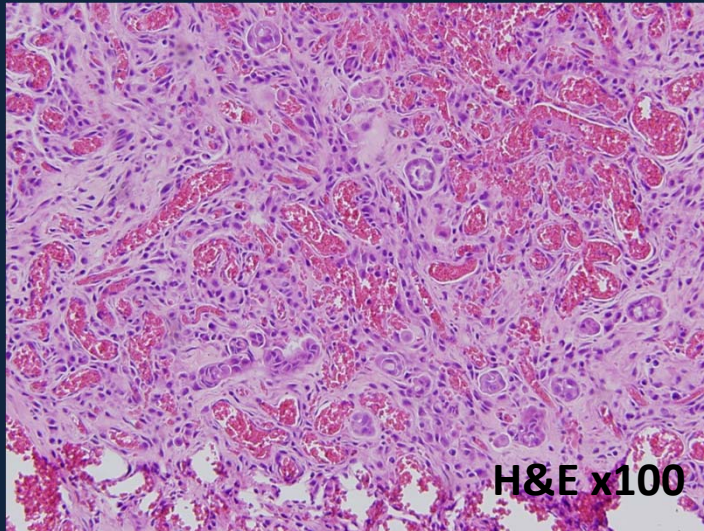


What would you do next?

1. Pericardiocentesis again?
2. Pericardiostomy with biopsy?
3. Pericardiectomy?
4. Wait & close follow-up?



Pericardiostomy with Biopsy



- Thickened pericardium
- Minimal effusion, mainly exudative
- Compatible with recurrent pericarditis
- Atypical mesothelial proliferation, no granuloma

Has your Dx. changed?

1. Yes

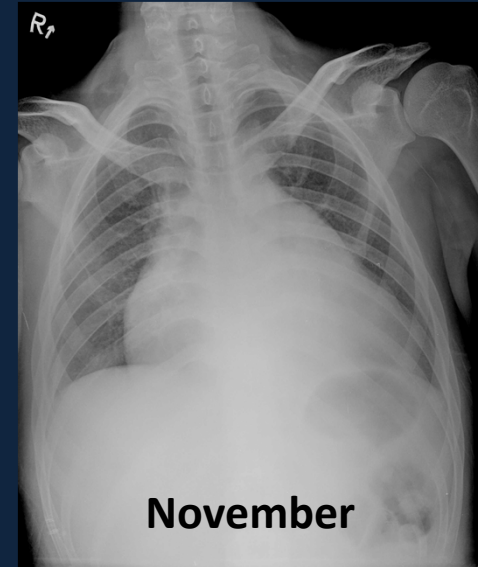
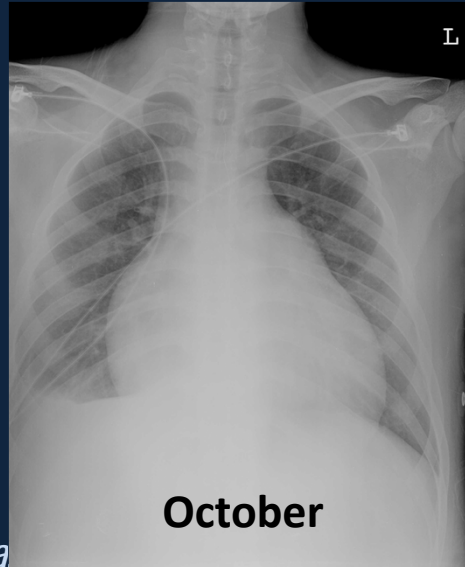
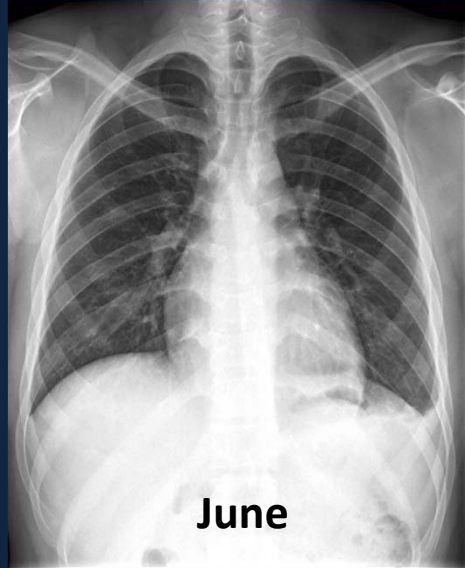
2. No

If Yes, how has it changed?

1. Viral pericarditis?
2. Tuberculous pericarditis?
3. Malignancy?
4. Any thing else?



Regular F/U as Outpatient

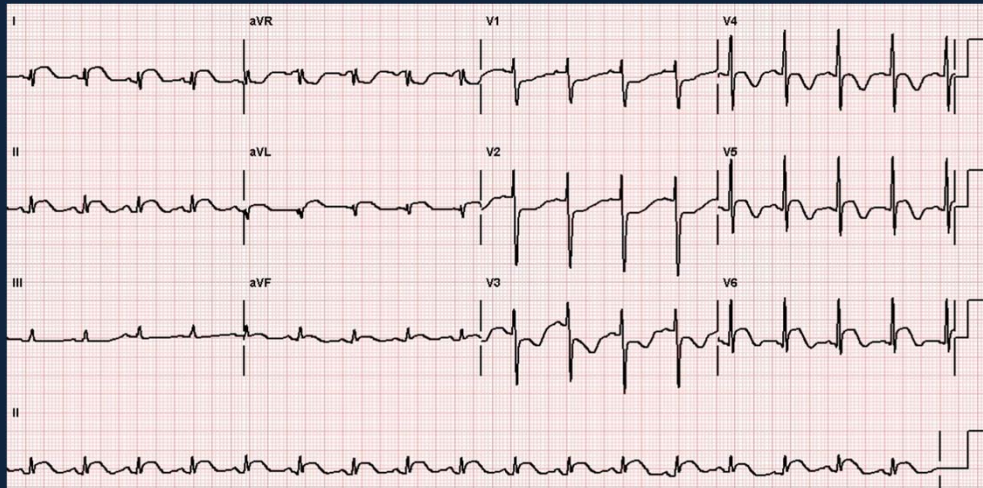


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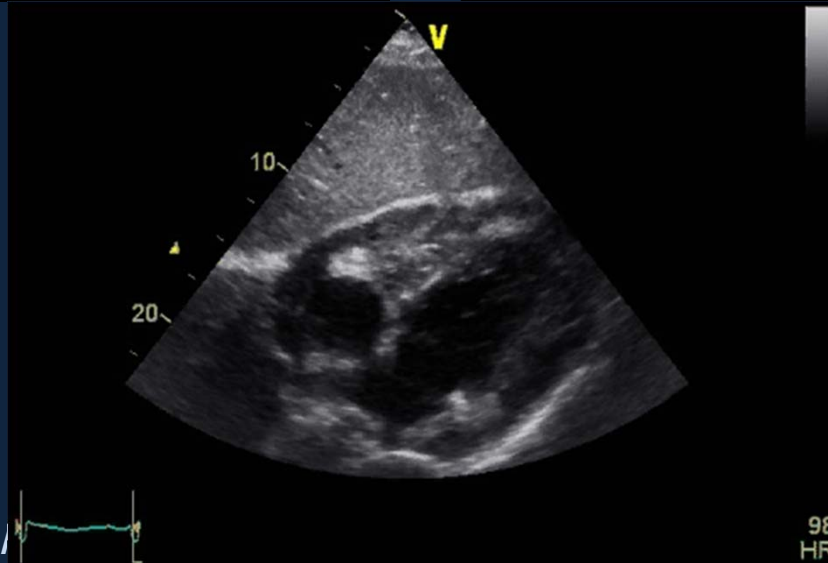
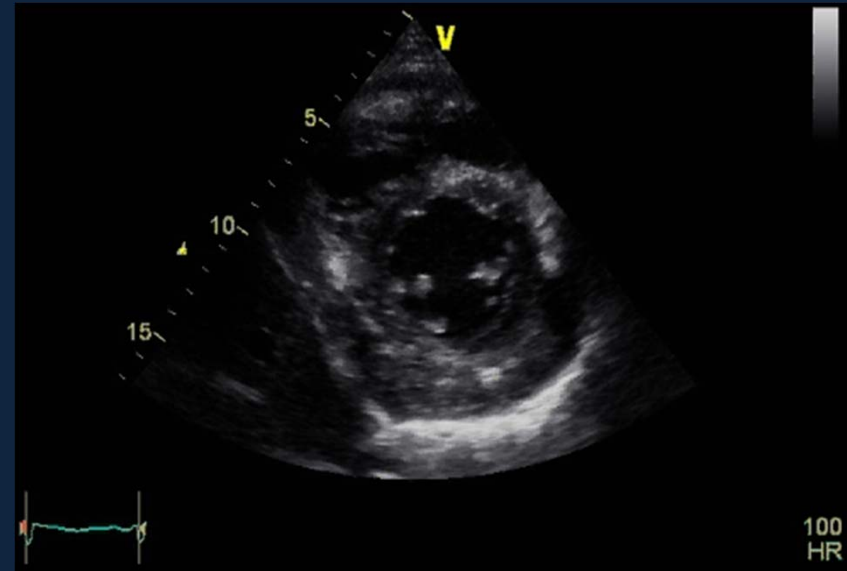
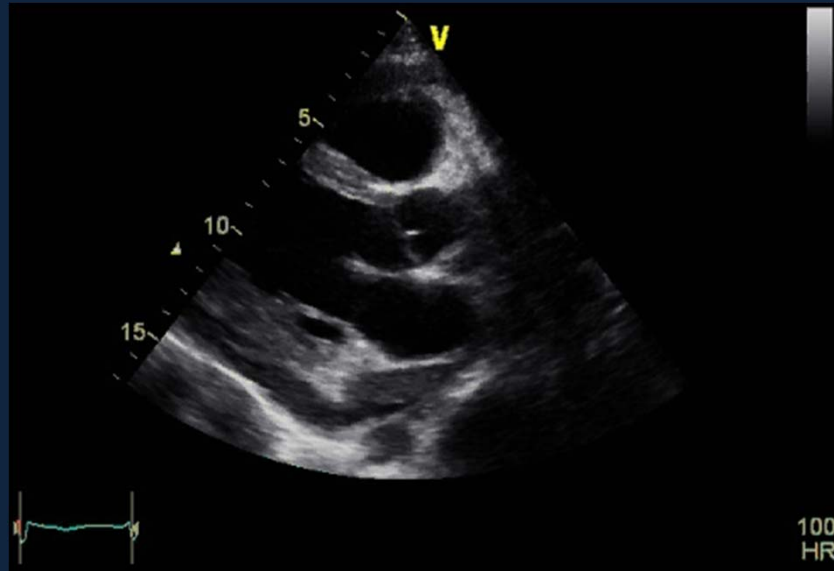
ospital Ca

October 2010

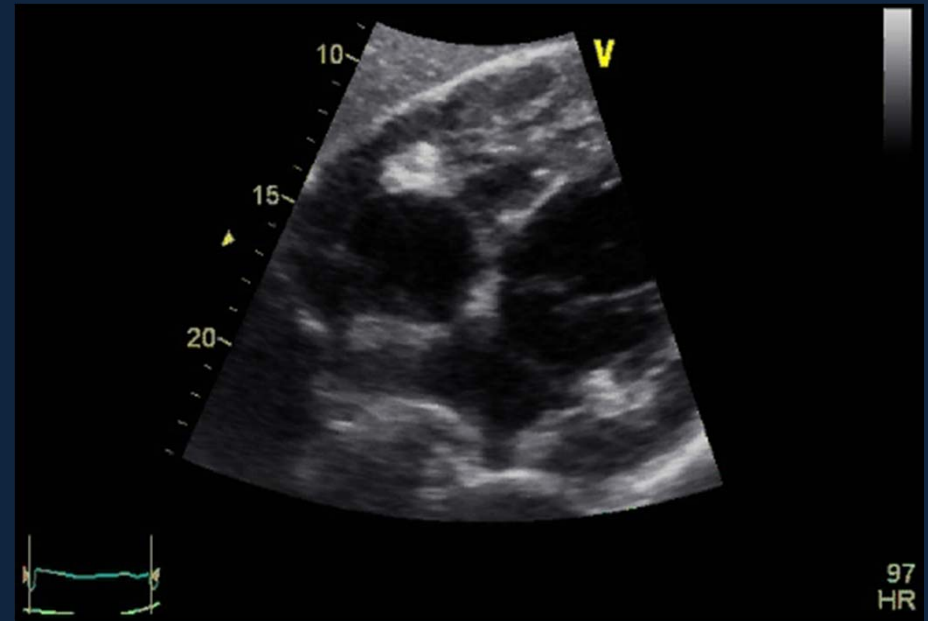
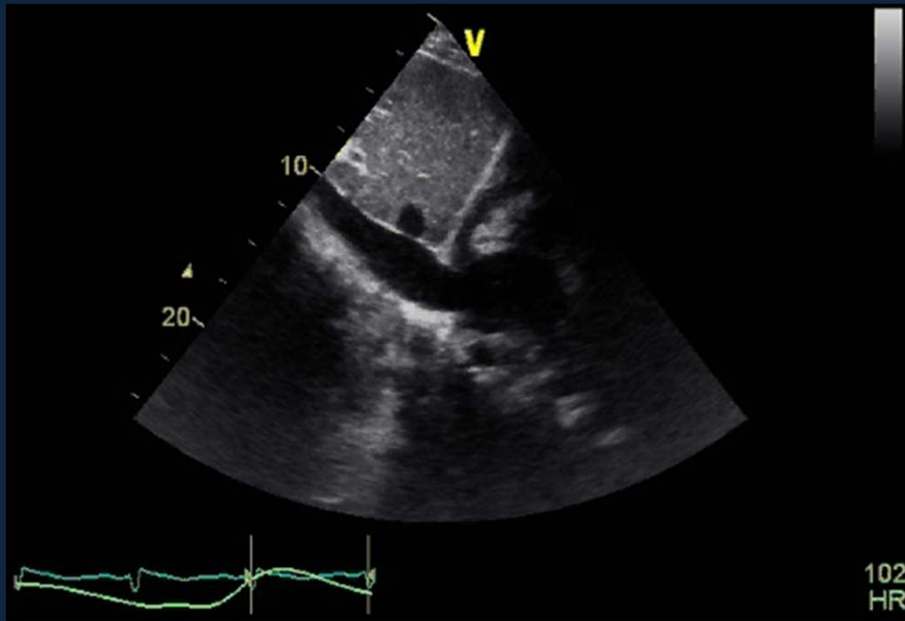
- Progressive dyspnea to NYHA Fc III~IV
- Pitting edema at both legs



Markedly Thickened Pericardium



RV failure

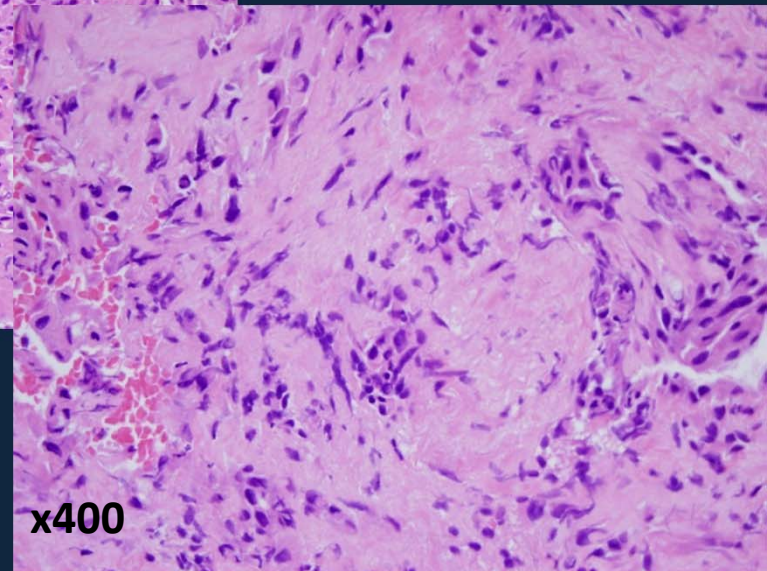
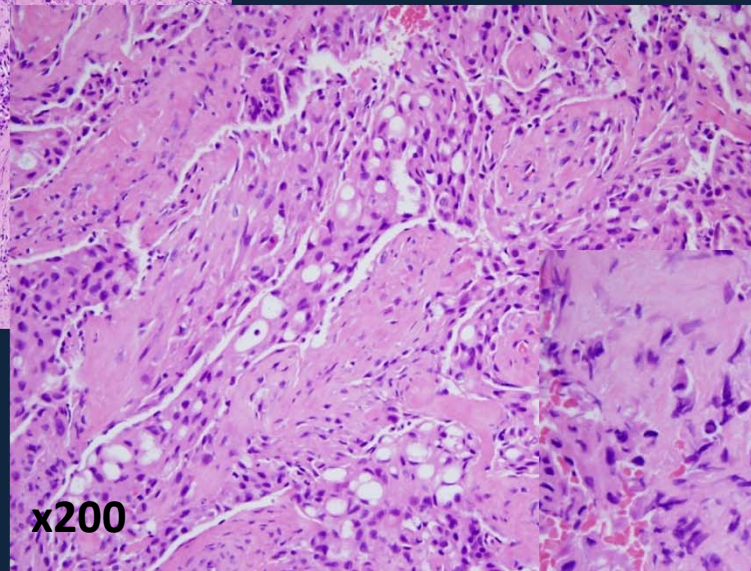
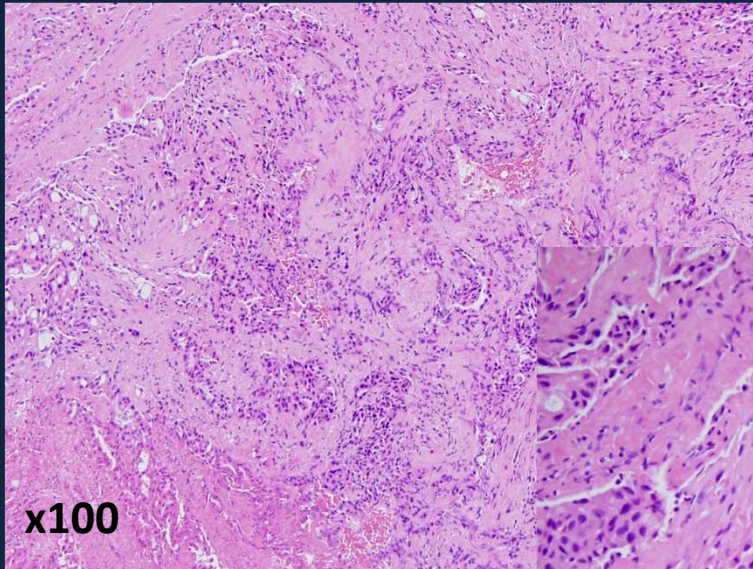


What would you do next?

1. Pericardiocentesis again?
2. Pericardiostomy with biopsy?
3. Pericardiectomy?
4. Wait & close follow-up?



Pericardial Biopsy Again



Issue of Steroid in Pericardial Ds...

- Steroid use in the era of evidence-based medicine...
 - Anecdotal short-term use
 - Proved by RCTs?
- Pros & cons
 - ↓constriction?
 - ↑inflammation/delay of Dx.?



Art of Medicine

- Similar clinical features
- Similar echoCG features
- Fluid analysis results indecisive
- Truly medicine is not only science, but also art!

