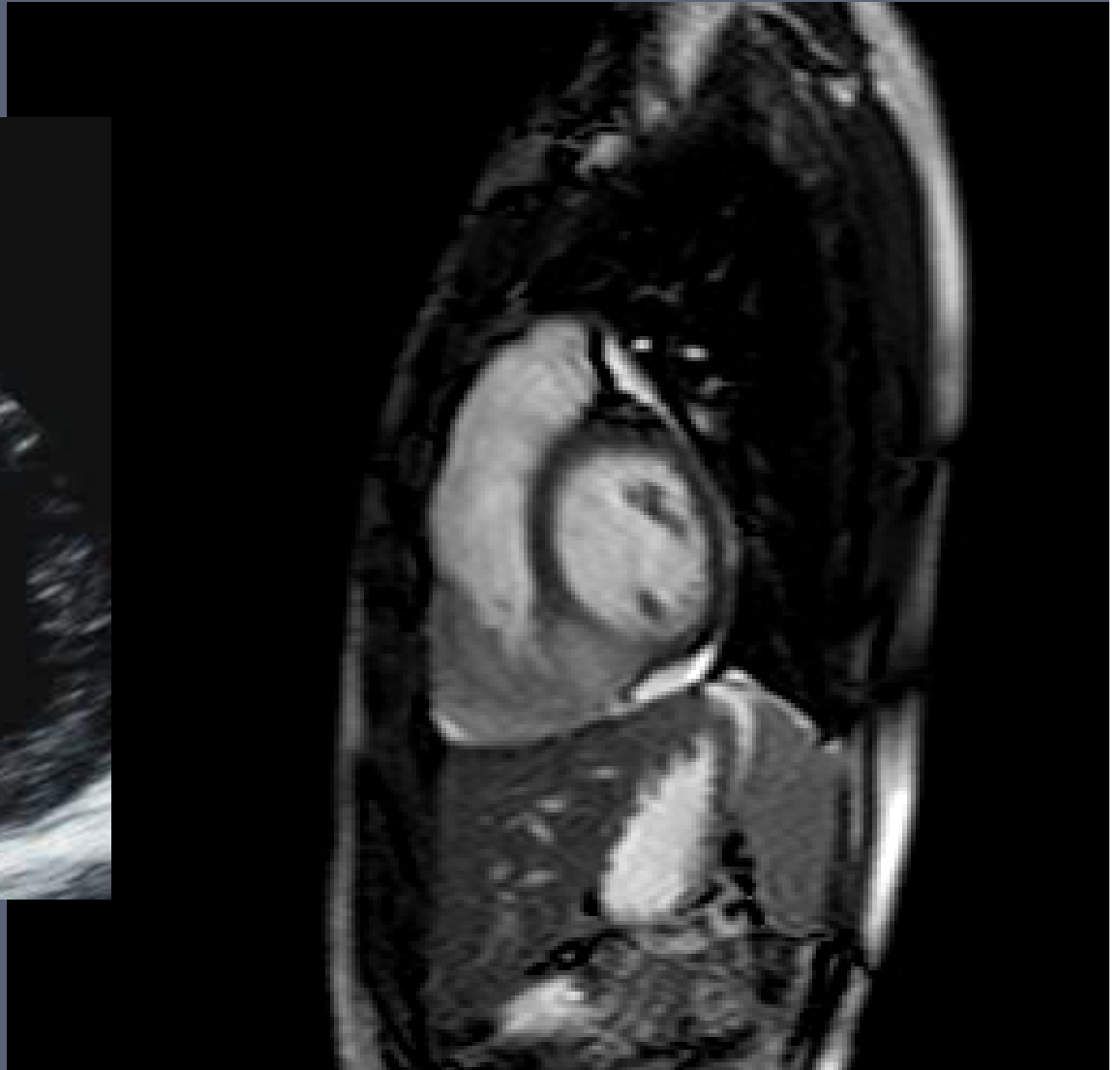
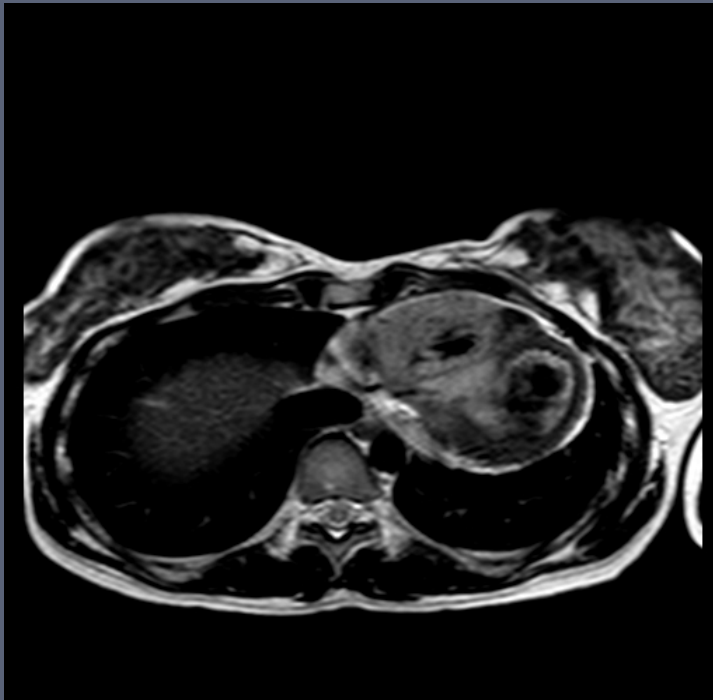


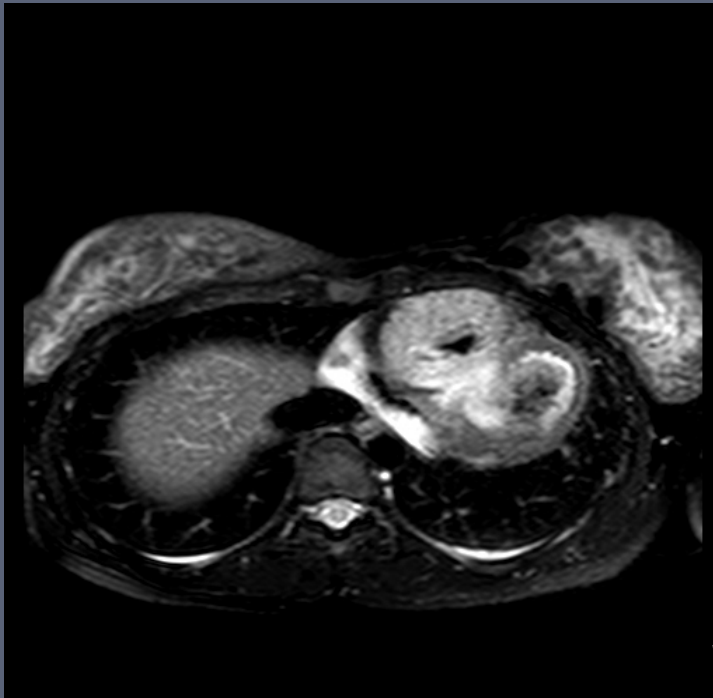
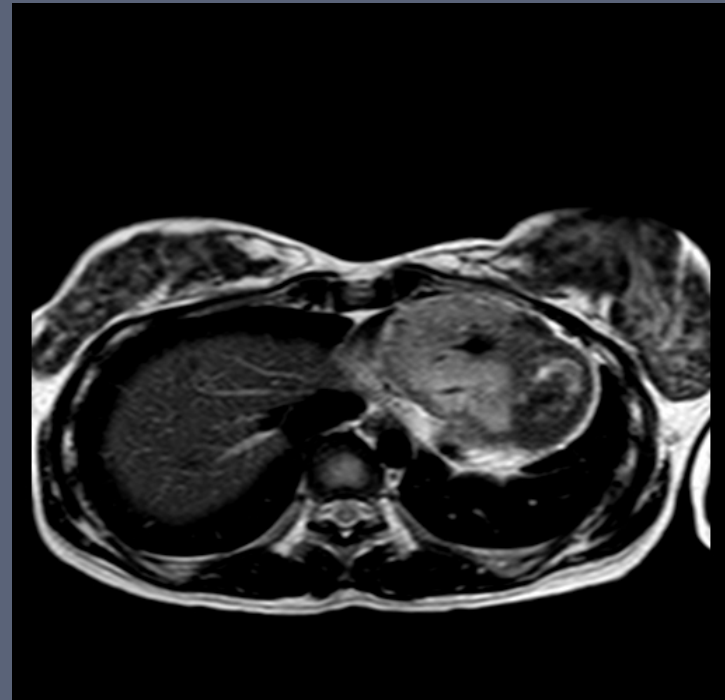
## 22yr / F

- C.C. : Chest pain for 5 years
- Anterior, mid-chest area
- Aggravated by exercise,  
Improved by resting
- Dizziness (+), Palpitation (+)

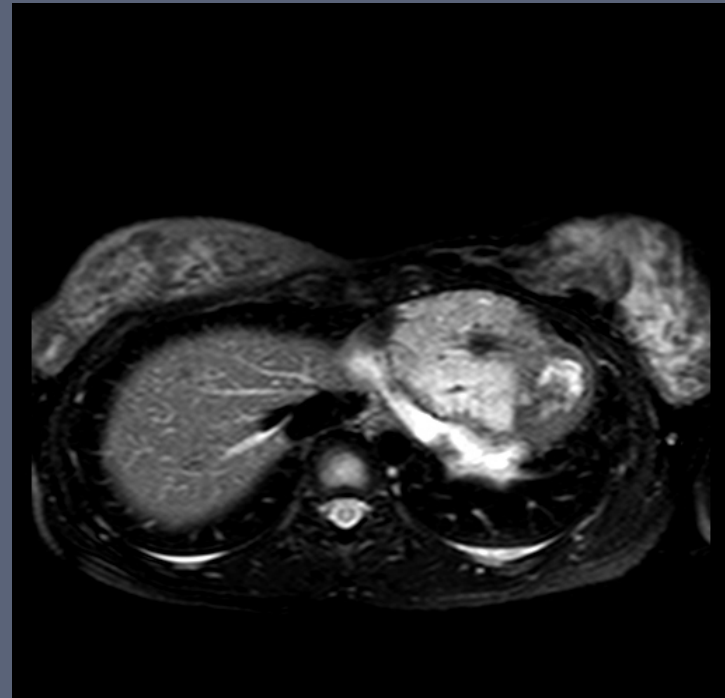


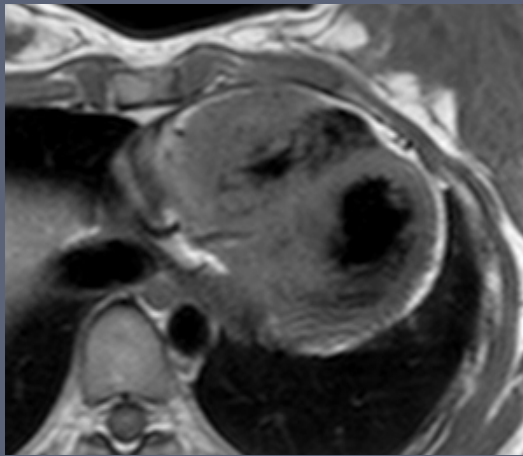


T2-axial

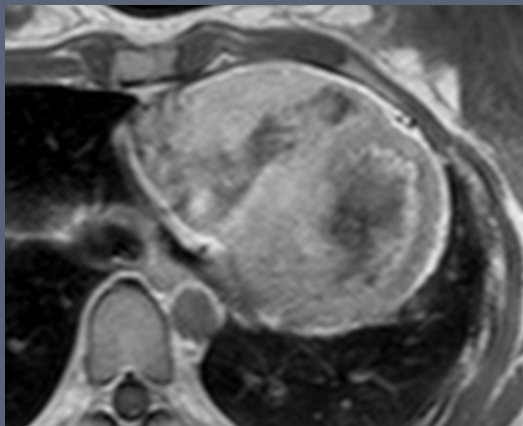
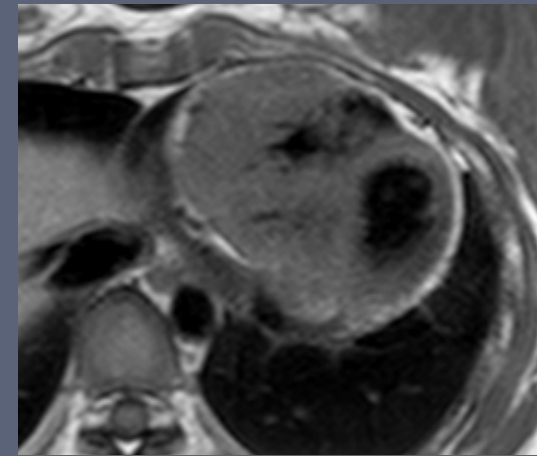


STIR-axial

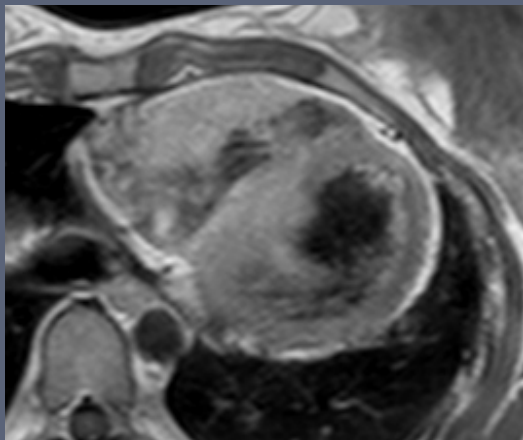
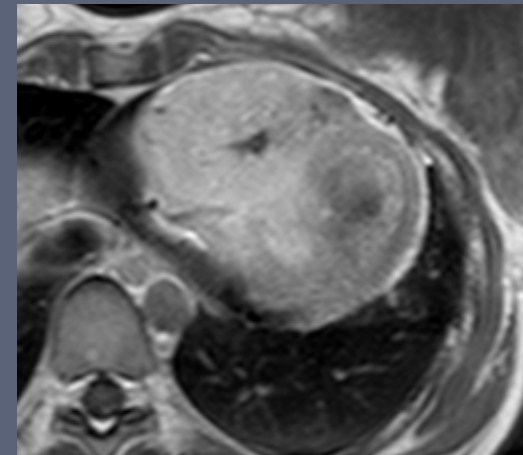




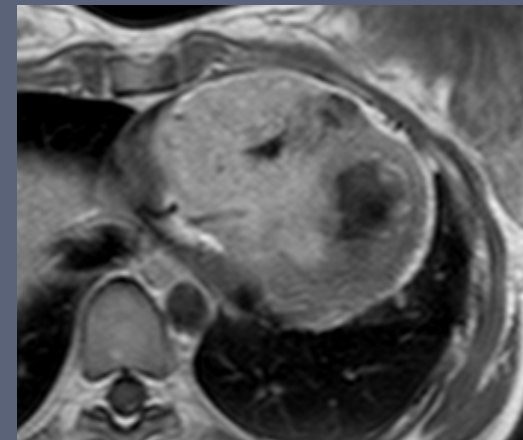
**T1-axial**

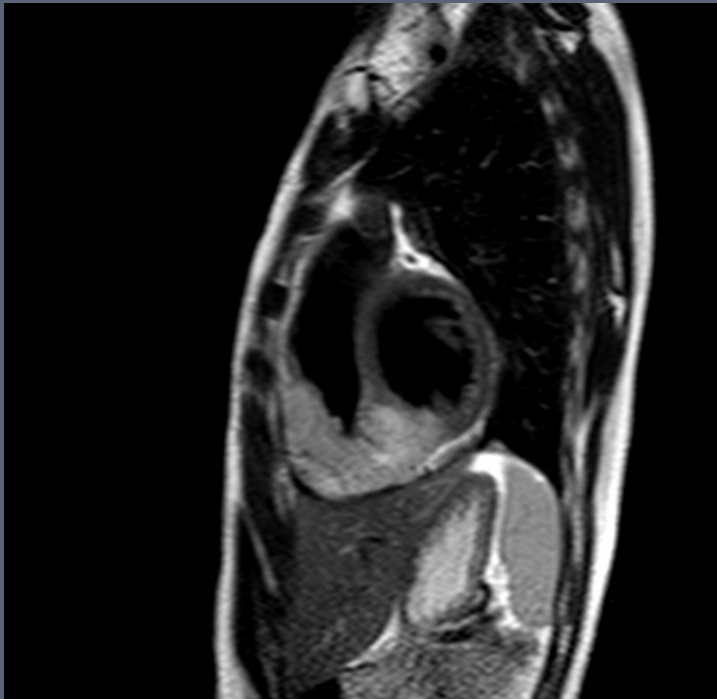
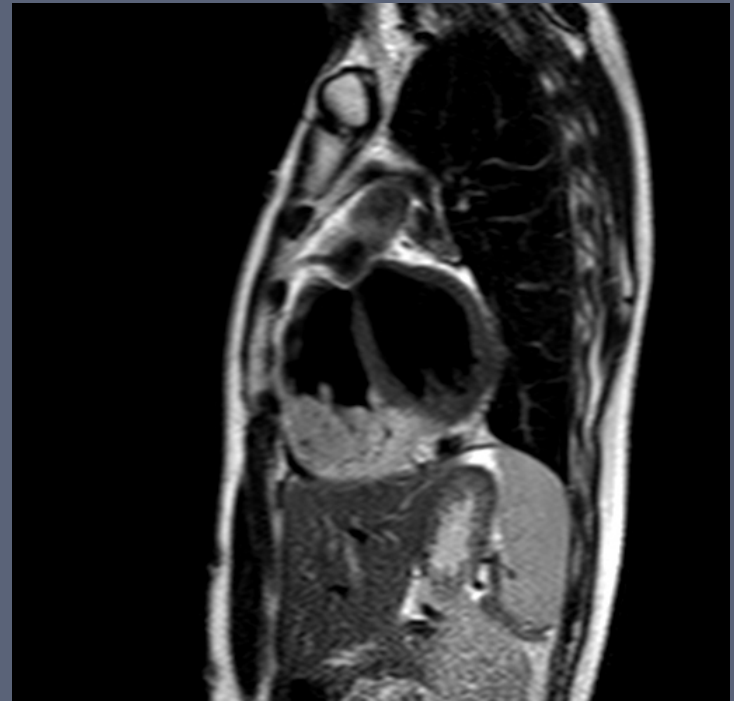
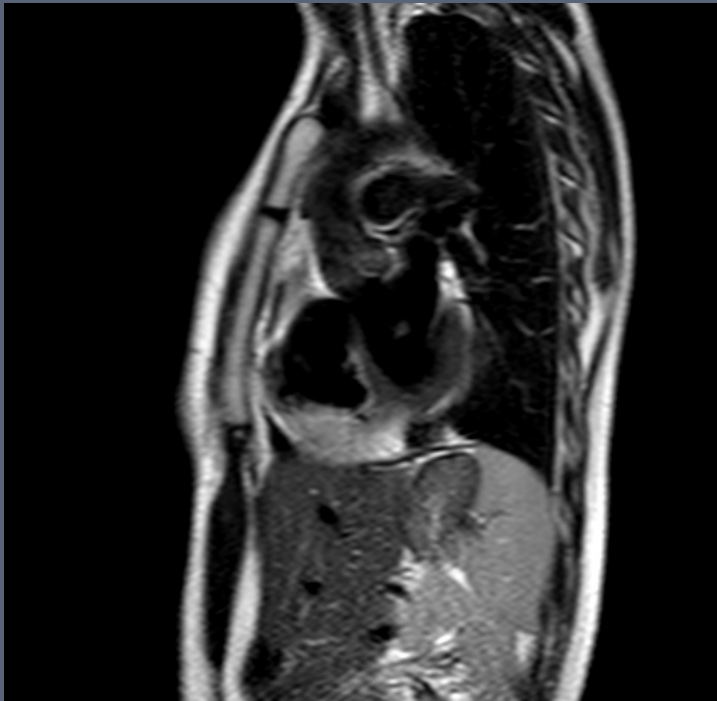


**T1-Gd(+)**

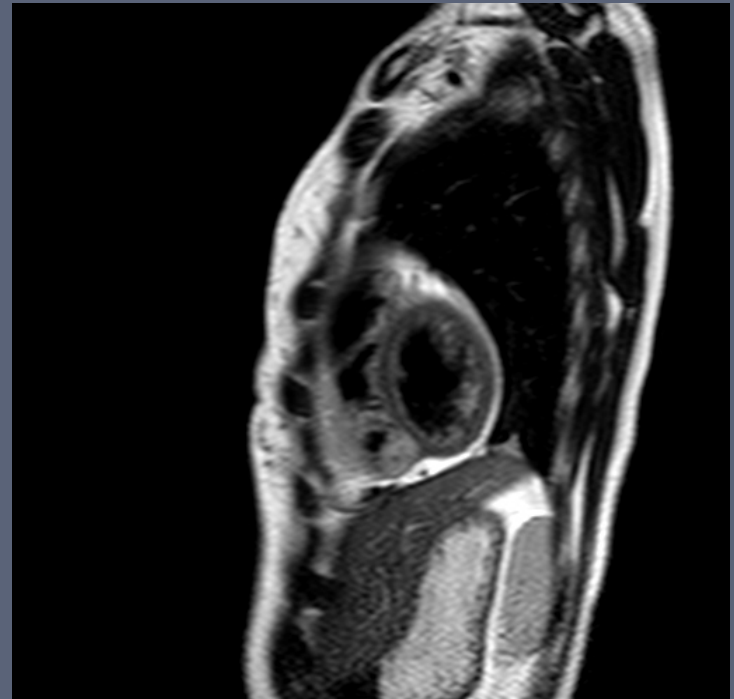


**T1-Gd(+)-10min**





T2-SA



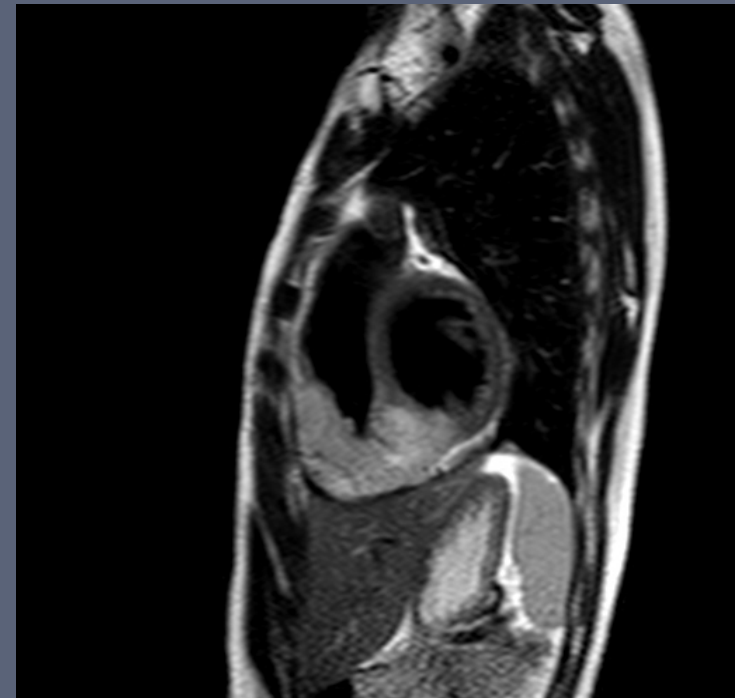
■ What do you have in your mind?

1. Lymphoma

2. Hypertrophic Cardiomyopathy

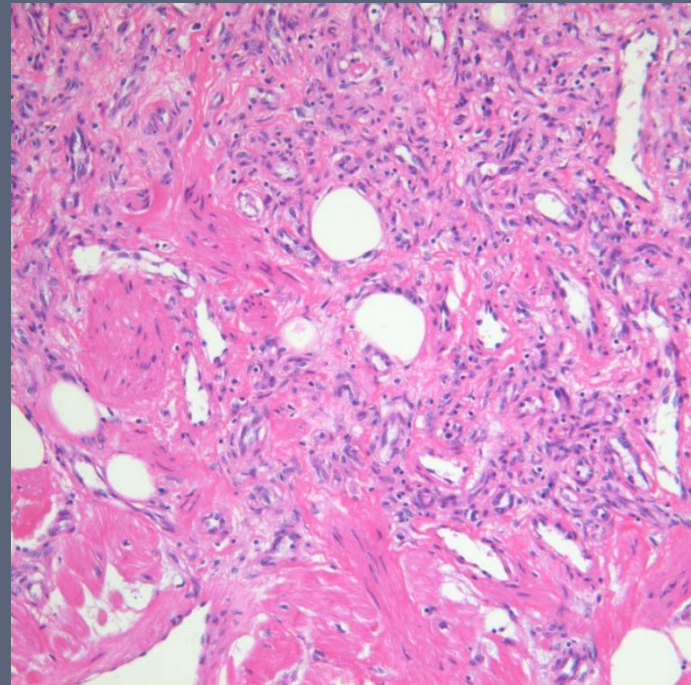
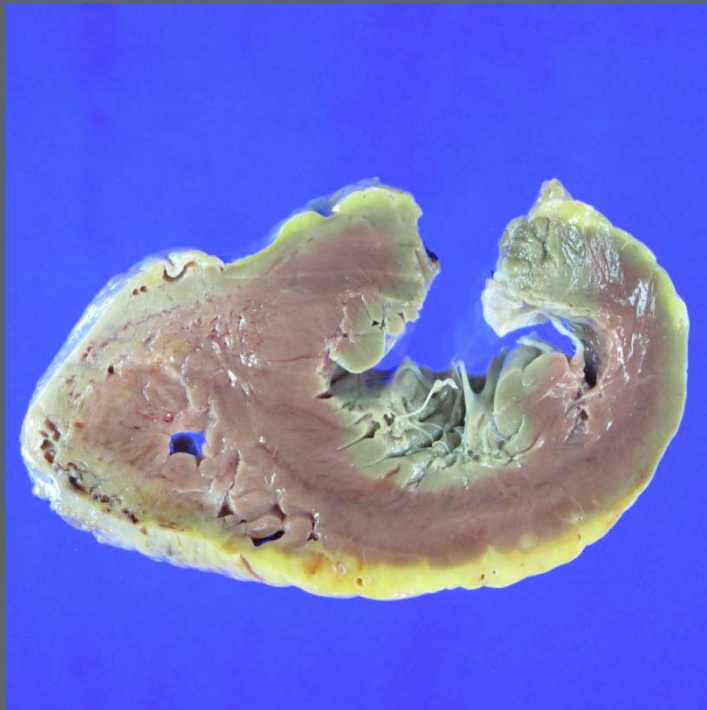
3. ARVD

4. Vascular Tumor





# Hemangioma



- DIAGNOSIS:

Heart, transplantation:  
Capillary hemangioma,  
7cm in greatest dimension,  
right ventricle,  
with 1) lipomatous fatty infiltration.  
2) myocardial disarray.



# Hemangioma

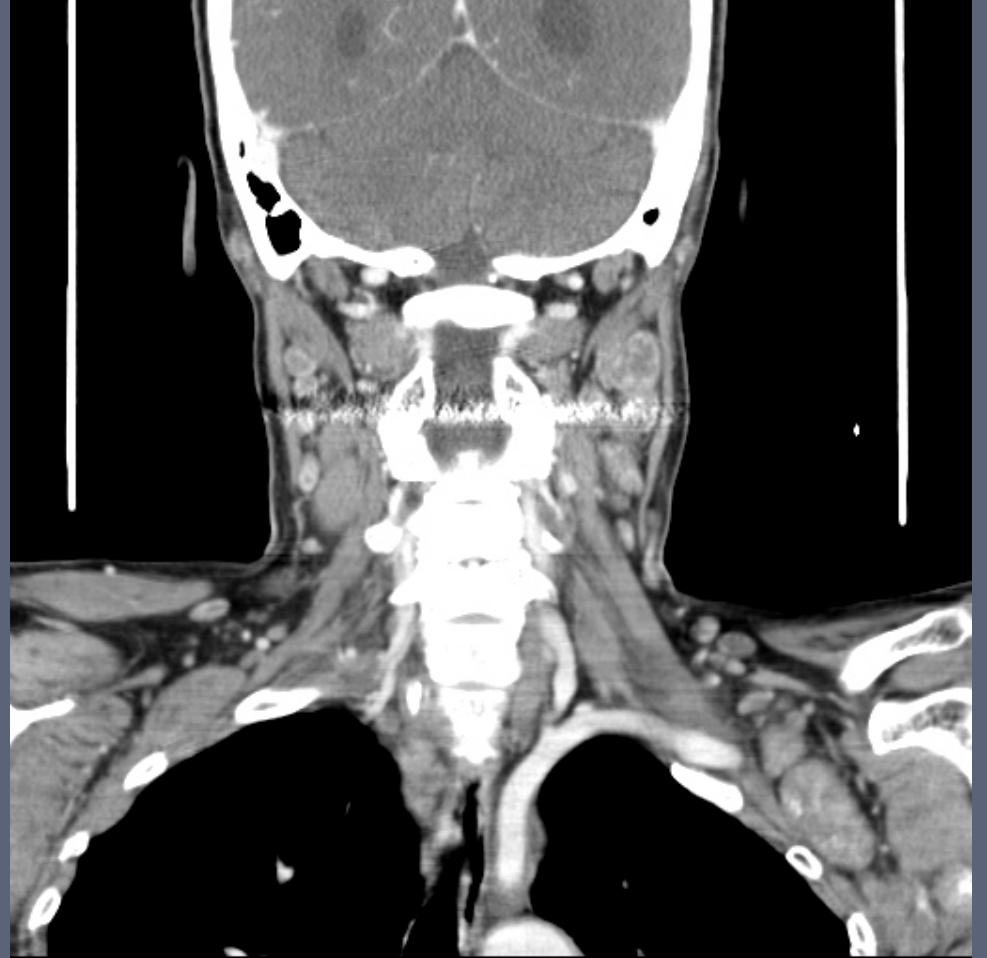
- 5-10% of benign tumor
- Any location of the heart
- At any age
- Shape
  - In myocardium: ill-defined, sponge-like
  - In endocardium: well-defined, myxoid
- Chance of spontaneous regression
- CT: Calcification in tumor
- MRI: T2 high, heterogeneous strong enhancement

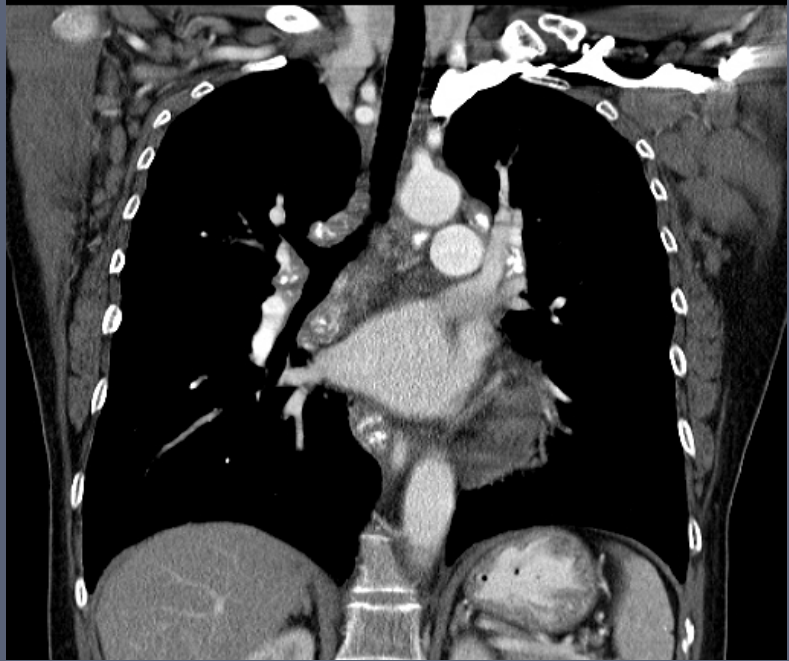
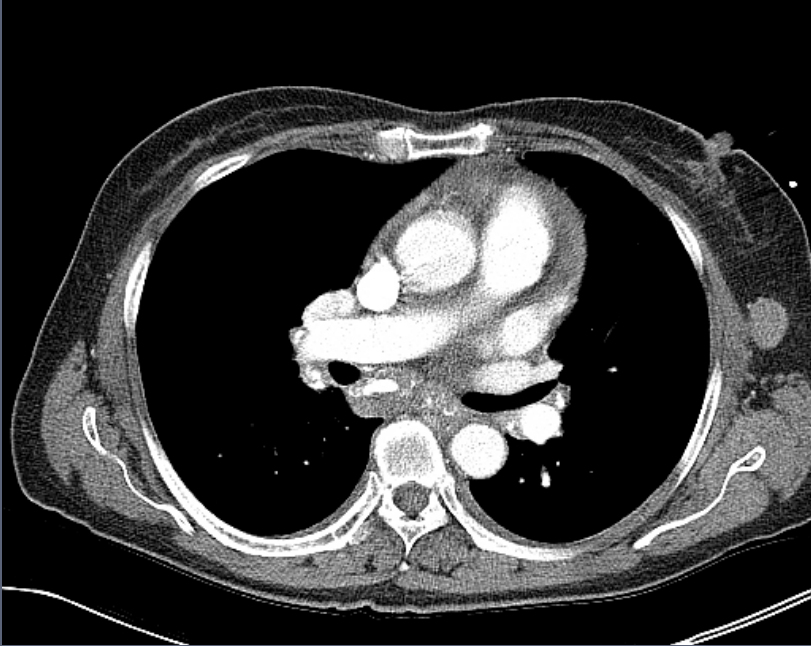
# 55yr / F

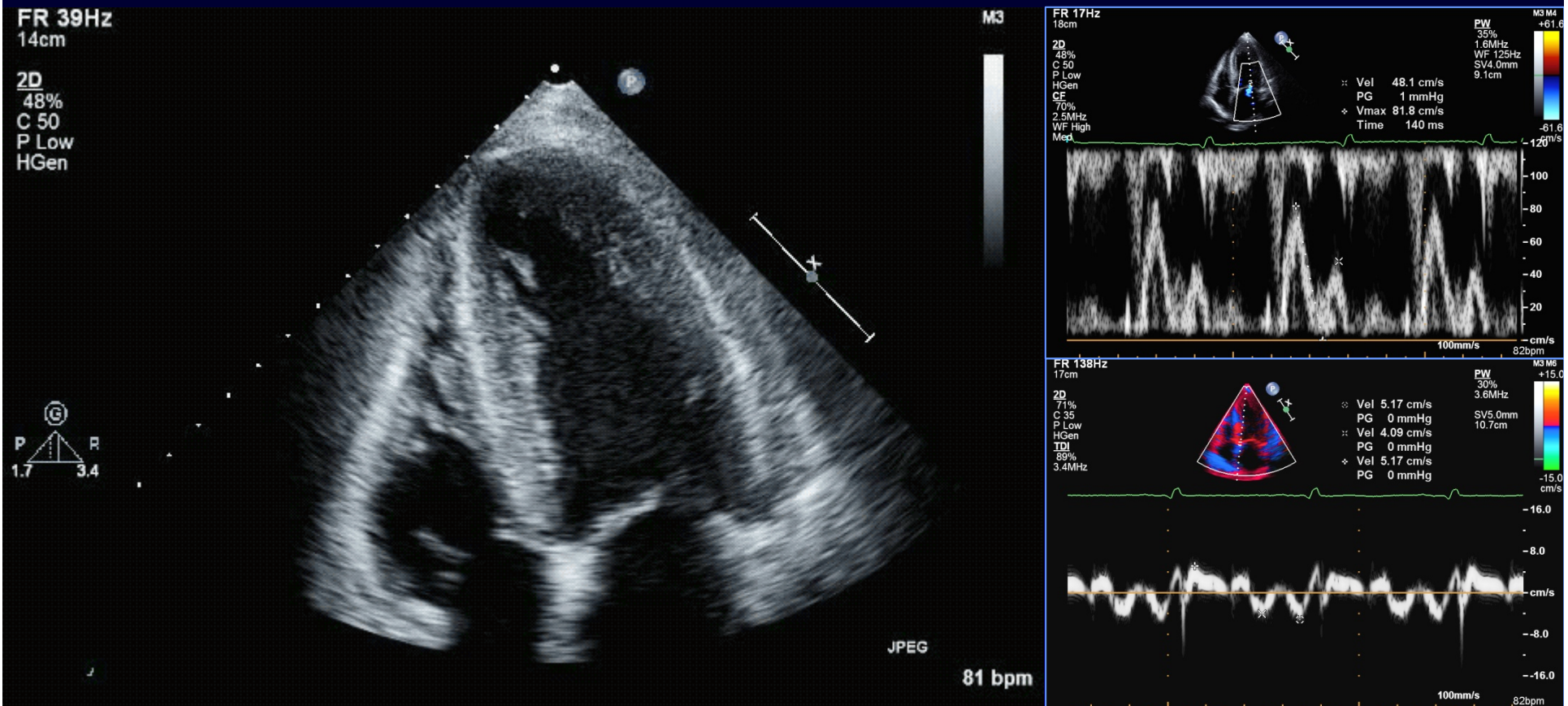
- C.C : palpable neck mass
- Past medical history:
  - 3 months ago → intraarterial thrombolytic therapy for acute infarction of left MCA territory

Presented by Joon Won Kang, Tae-Hwan Lim.

Ulsan University Asan Medical Center (AMC), Seoul, Korea





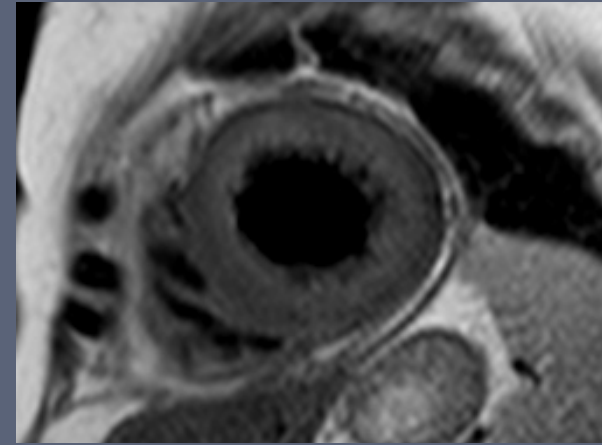
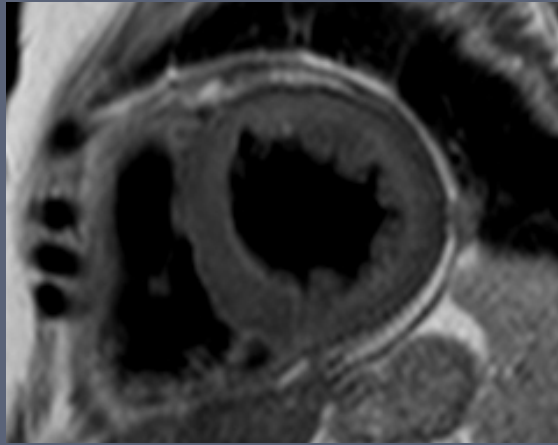


4 chamber view

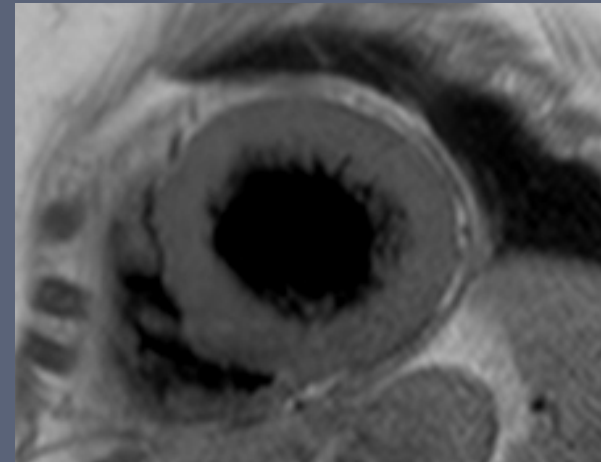
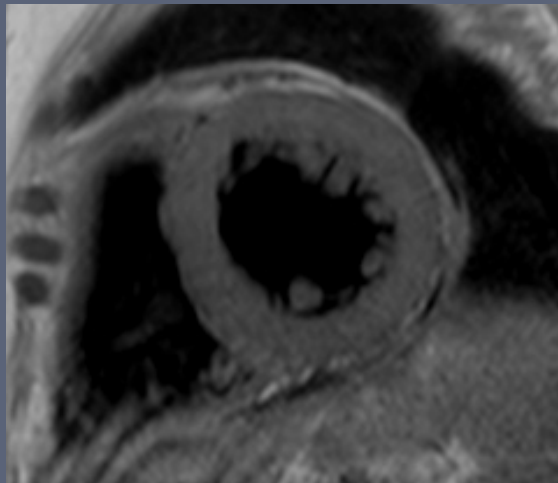
Mitral inflow DT = 140ms  
E/E' = 21



T2WI



T1WI



Delayed-  
enhancement

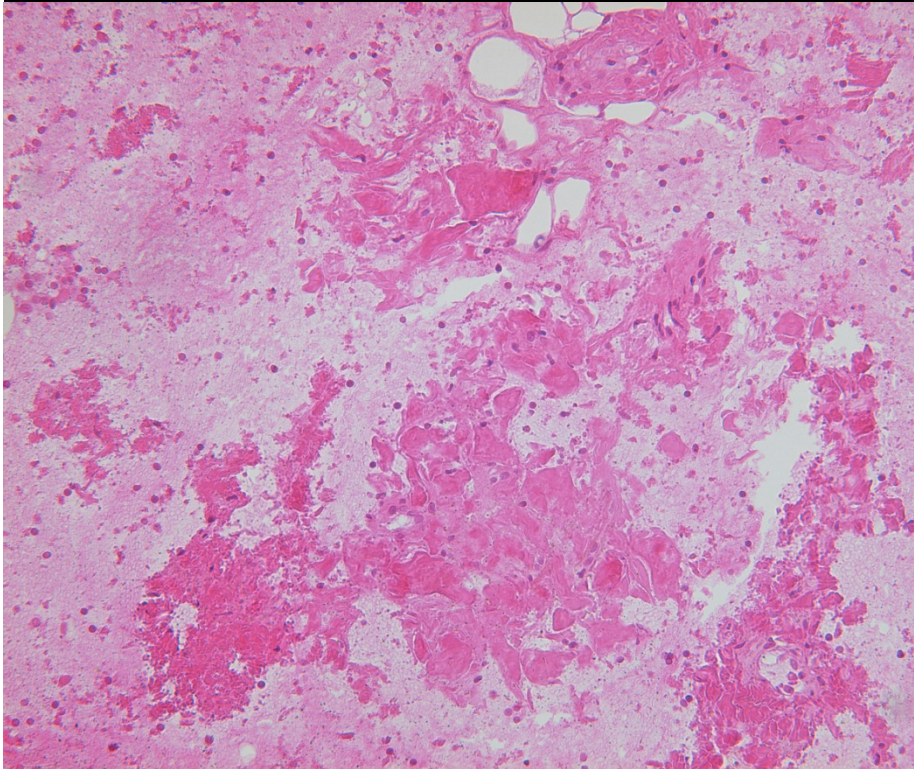




# Answer

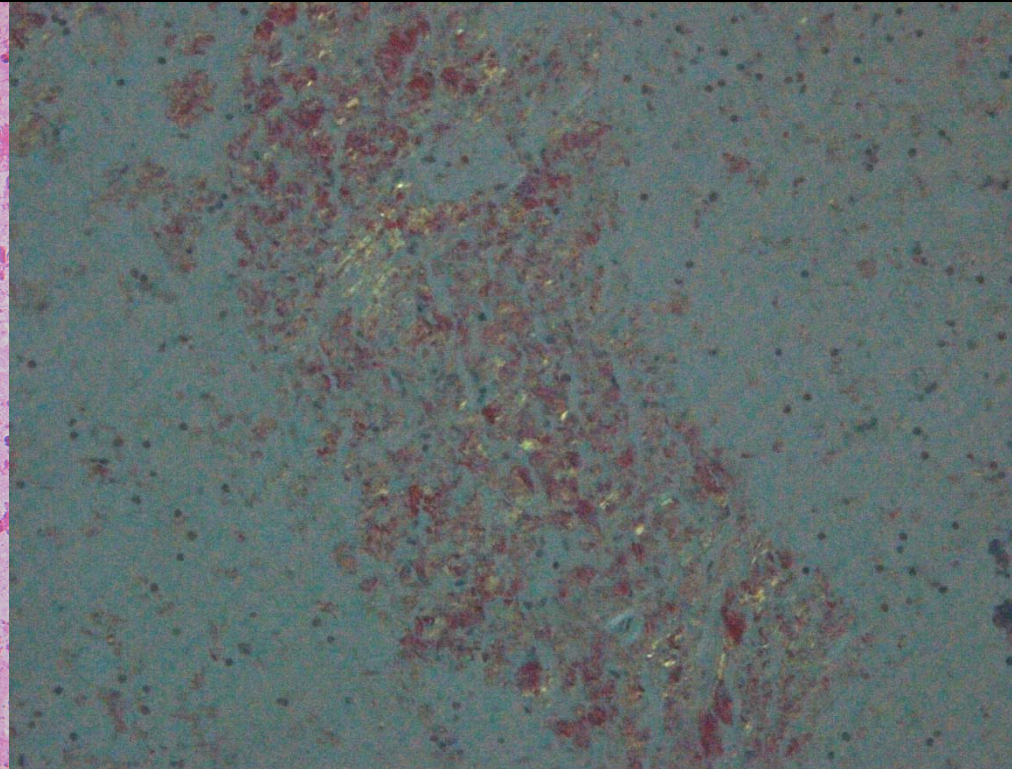
Amyloidosis

Biopsy from axillary lymph node



## H & E stain

Pinkish fine granular or glassy pattern of amorphous hyalinized material



## Congo red stain

Apple green color of birefringence  
-> amyloid deposit

# Amyloidosis

- Abnormal extracellular deposition and accumulation of protein and protein derivatives
- Diagnosis
  - Congo red staining
  - 'Apple green birefringence' under polarized light
- Classification
  - Primary (underlying plasma cell disorder or no associated disease) vs. secondary (underlying chronic abnormality)
  - Systemic vs. localized
  - Type of deposited amyloid (Ig light chains, AL)

# Amyloidosis

- Lymph node involvement
  - Up to 37% of systemic amyloidosis
- Punctuate calcification in 50% of amyloid LNs
  - Tuberculosis
    - Scleroderma
  - Sarcoidosis
    - Metastasis
  - Castleman's disease
    - Hodgkin's disease after irradiation
  - Amyloidosis