

# The Copycat

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## Background

72 year old male with

- Diabetes mellitus
- Hypertension
- Hyperlipidaemia
- Stage 3 chronic kidney disease
- Non-ischaemic cardiomyopathy
  - Presented with cardiogenic shock and VT in 2016
  - Minor coronary artery disease
  - LVEF 30-35%
  - Dual-chamber AICD implanted

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## Current presentation

- Abdominal discomfort for 1 month
  - Worse after food
- Constipation for 2 weeks
- No cardiac symptoms
- Vitals
  - BP 115/61 mmHg
  - Pulse rate 51 bpm
  - Oxygen saturation 97% room air
- Clinically euvolaemic

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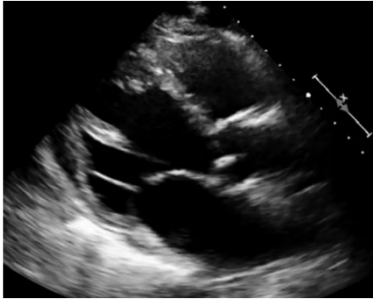
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Parasternal long (1)



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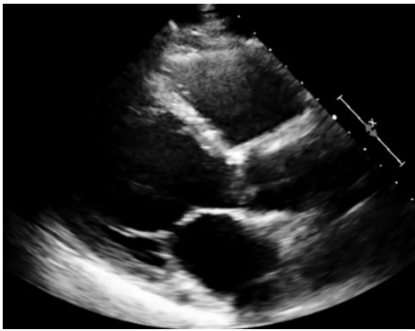
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Parasternal long (2)



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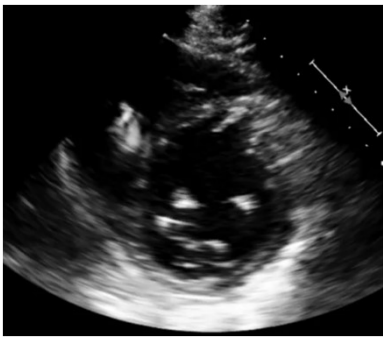
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Parasternal short: mitral valve



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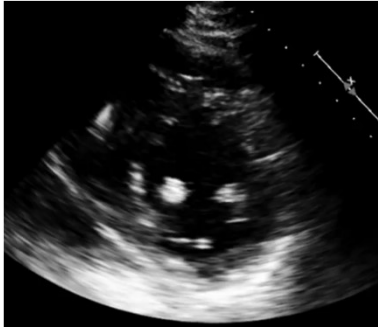
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Parasternal short: mid LV level



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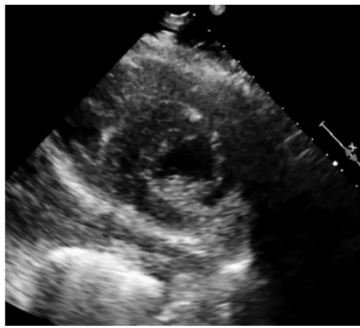
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Parasternal short axis: apex (1)



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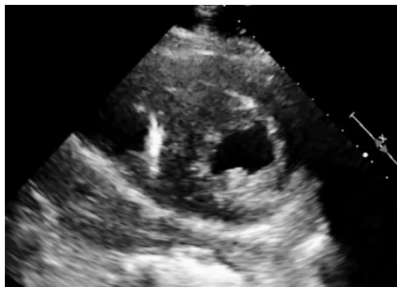
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Parasternal short axis: apex (2)



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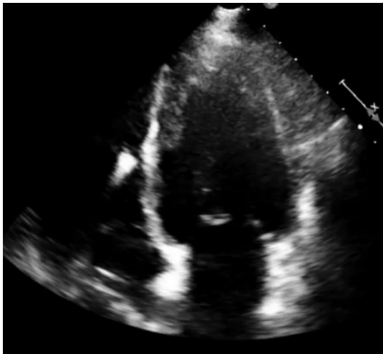
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Apical 4 chamber (1)



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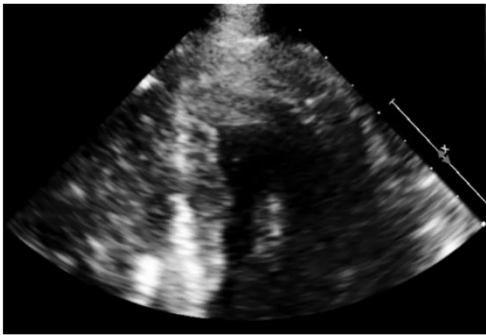
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Apical 4 chamber (2)



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Apical 4 chamber (3)



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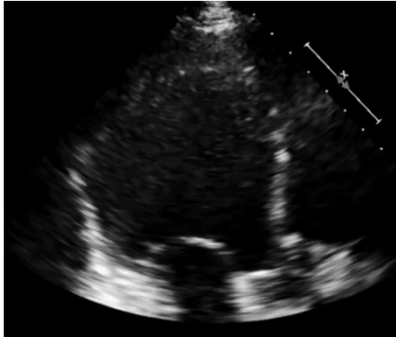
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### Apical 3 chamber



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### Diagnosis?

1. Thrombus
2. Hypertrophic cardiomyopathy
3. Infiltrative heart disease
4. Cardiac tumour
5. I have no idea

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### Next investigation?

1. Cardiac MRI
2. Contrast echocardiogram
3. Cardiac biopsy

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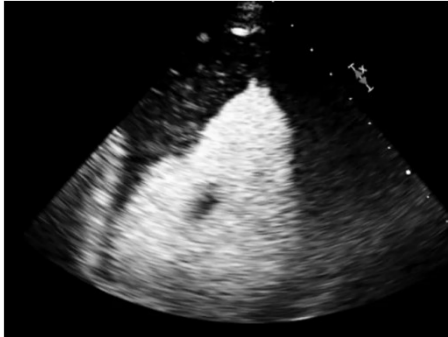
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Apical 4 chamber



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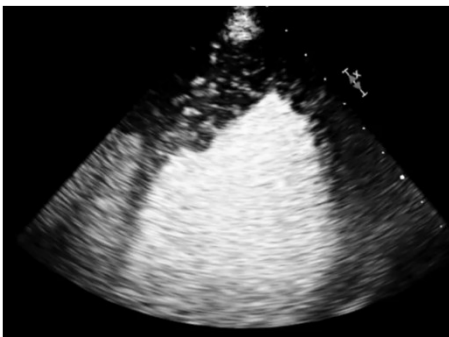
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Apical 4 chamber



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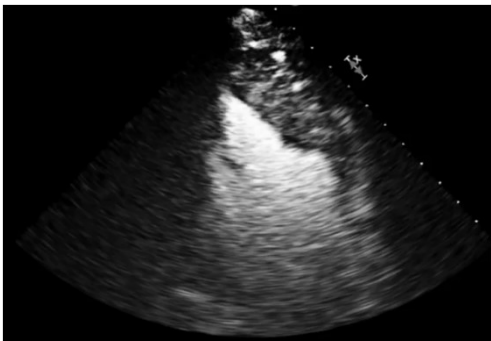
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Apical 3 chamber



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Parasternal short axis: apex



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Diagnosis?

1. Thrombus
2. Hypertrophic cardiomyopathy
3. Infiltrative heart disease
4. Cardiac tumour
5. I still have no idea

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Diagnosis?

- **Thrombus**
  - Avascular, hence appearing as a “filling defect”
- **Hypertrophic cardiomyopathy**
  - ? Apical HCM
  - But heterogeneous echogenicity within myocardium
- **Cardiac tumour**
  - Malignant, highly vascular tumours demonstrate hyperenhancement

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## Further work-up

- OGD
  - Friable ulcerated tumour in the proximal body of the stomach
  - Histology: Diffuse large B-cell lymphoma (DLBCL)
- Colonoscopy normal
- Hypercalcaemia

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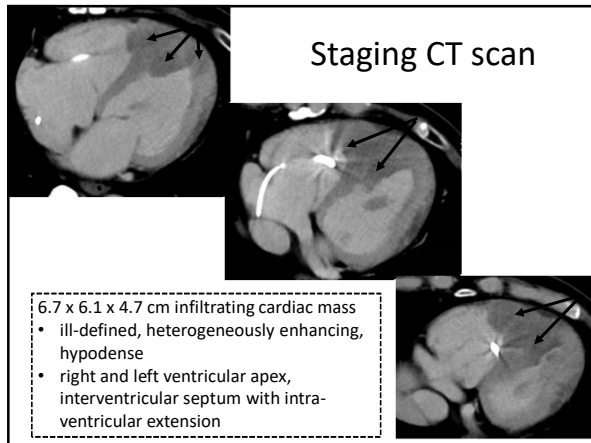
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## Treatment

- Diagnosis:  
DLBCL with cardiac, renal and adrenal involvement
- Chemotherapy with R-CEOP
  - Rituximab
  - Cyclophosphamide
  - Etoposide (instead of doxorubicin)
  - Vincristine
  - Prednisolone

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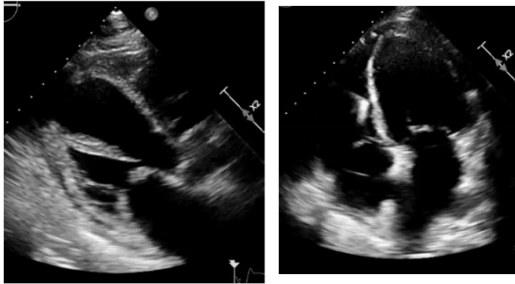
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After 1 cycle of chemo



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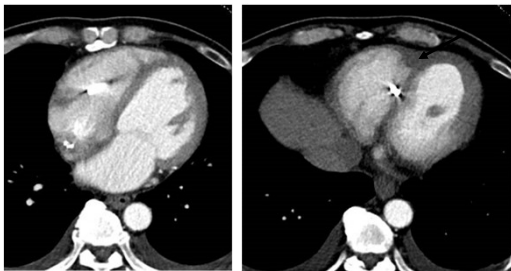
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After 3 cycles of chemo



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Take-home messages

- Contrast echocardiography is useful in the differential diagnosis of cardiac masses
- Important to take a good history from your patient

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Thank you!

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