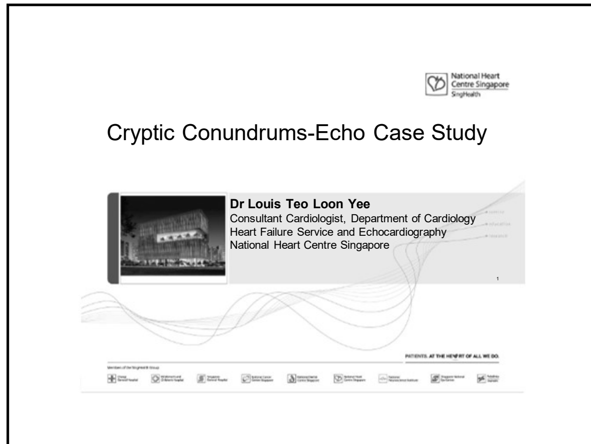
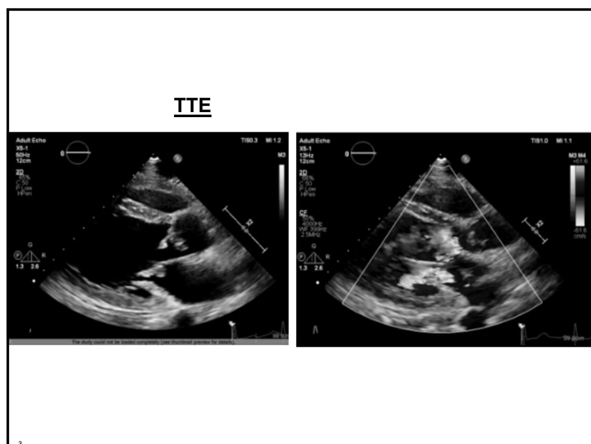


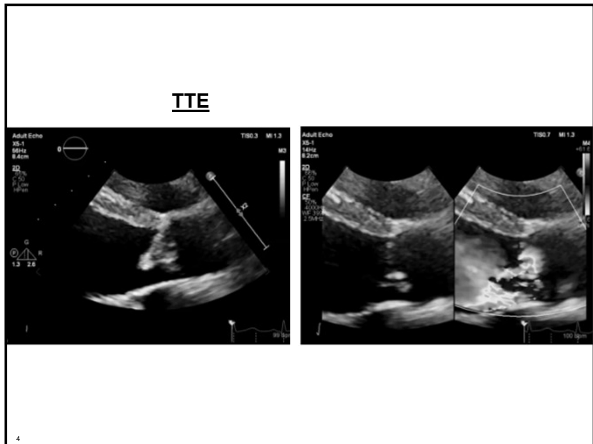
IYBYA

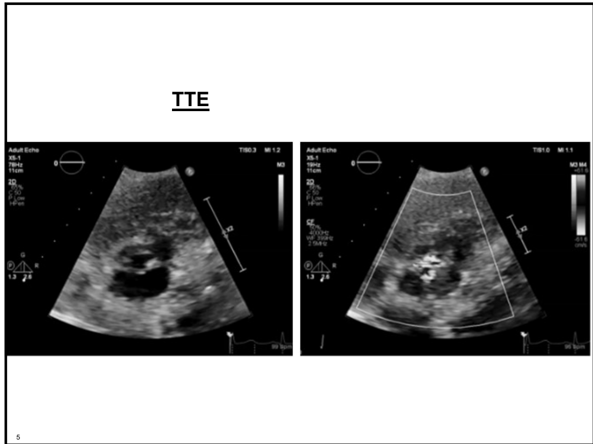
41 year old Malay Female
No PMHx of note

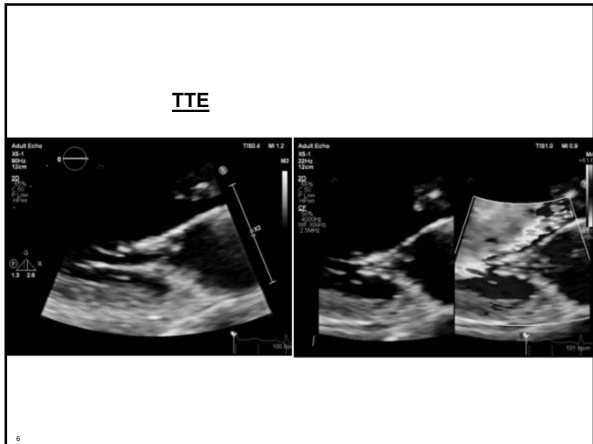
Presented to KTPH for chest pain, epigastric pain, LOA and LOW
- Had a TTE performed because of murmur on auscultation

2

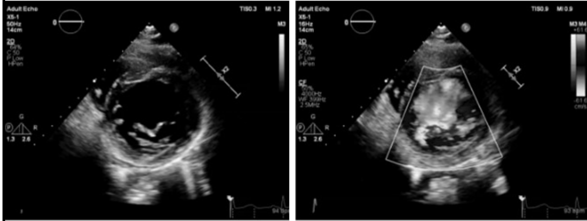



TTE
4

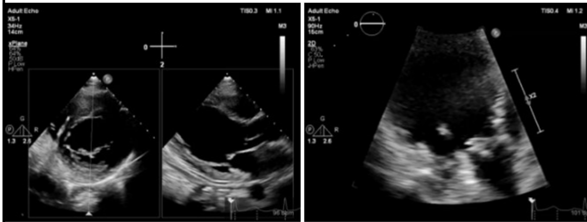

TTE
5


TTE
6

TTE

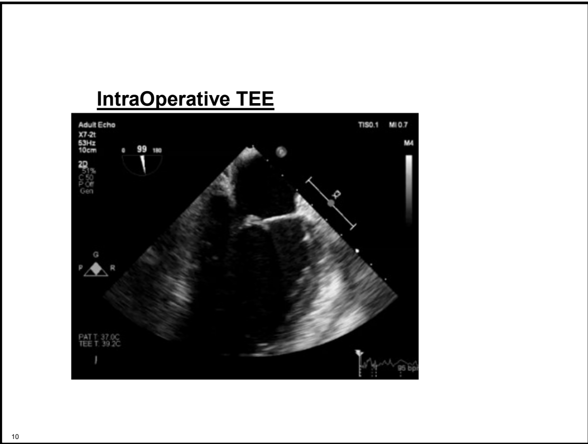


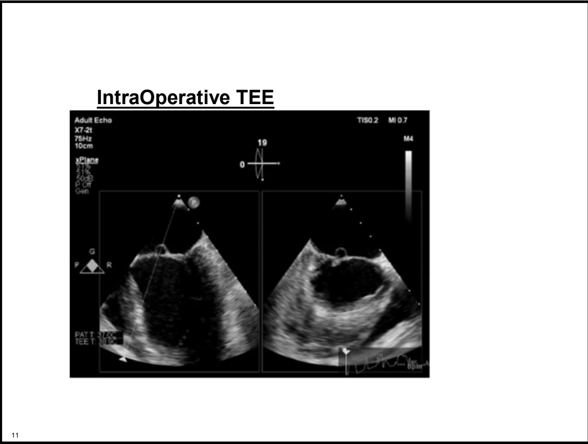
TTE

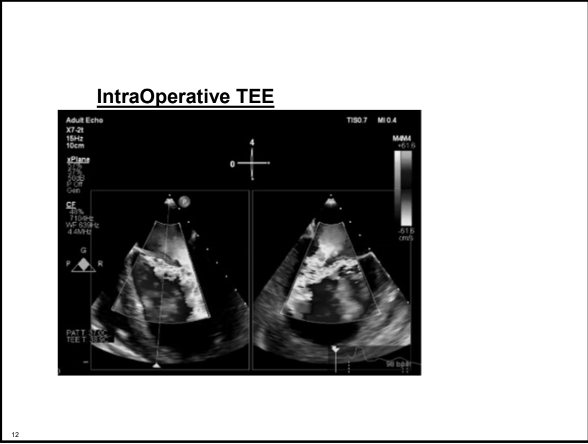


Clinical Progress

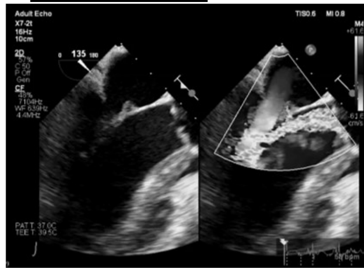
- Cultures negative
- Impression:
  - IE of the AV (severe AR) and MV (possible abscess), Cx by septic emboli to Lung & Spleen (CT T/A/P)
- Transferred to NHCS CTS on 08/08/2018


IntraOperative TEE
Adult Echo
X7-2t
10cm
99
10


IntraOperative TEE
Adult Echo
X7-2t
10cm
19
11


IntraOperative TEE
Adult Echo
X7-2t
10cm
12

IntraOperative TEE



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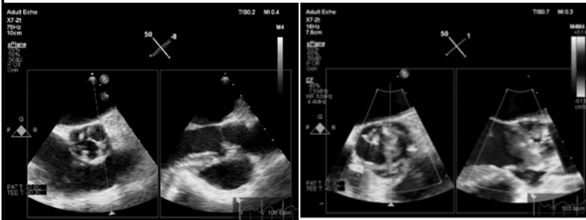
IntraOperative TEE



14

Surgical Intervention on 18/9/18

Mitral Valve Aneurysm

15

Mitral Valve Aneurysm

- First described by Morand et al in 1792
- Uncommon condition that can occur as a complication of IE of AV or MV
- Reported incidence of 0.29% on 4500 TEE examinations by Vilacosta et al
- Anterior MVA is more commonly observed than the posterior MVA
- Rupture of the aneurysm is the most feared complication, which can result in severe MR causing rapid hemodynamic deterioration

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Mitral Valve Aneurysm: Clinical Features, Echocardiographic-Pathologic Correlations

- Most commonly due to AR - Probable mechanism of its formation is destruction of the AV which results in a regurgitant jet that strikes the AMVL, creating a secondary site of infection leading to the development of an aneurysm

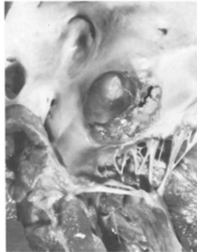
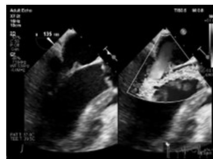


Figure 1. Case 3. Autopsy specimen of a mitral valve. A large conical aneurysm of the anterior leaflet is projecting 1.9 cm toward the left atrium. At the junction of the aneurysm with the leaflet, a perforation is seen.

Echocardiographic features



- Non specific
  - Saccular bulge of the mitral leaflet protruding toward the left atrium with systolic expansion and diastolic collapse.
  - Diastolic expansion may occur with AR or after rupture of the MVA
  - Colour Doppler can demonstrated systolic flow into mass or may be absent.
- Can be challenging to localize the exact site & size of aneurysmal rupture because of the inherent limitations of 2D TTE.

Differential diagnosis

- MVP +/- flail
- MV PFE (Papillary Fibroelastoma)
- MV Myxoma
- MV blood cysts without endothelization
- MV diverticulum

Complications

- Endocarditis
- Thromboembolisation (vegetation or thrombus formation)
- Rupture of the aneurysm or perforation of the valve leaflet leading to acute, severe MR and APO

Management

- Conservative approach for small, uncomplicated aneurysms is a reasonable option with close follow-up
- Surgery for large unruptured aneurysms or in the setting of perforation or rupture of the aneurysm (with or without significant MR)

Questions?

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