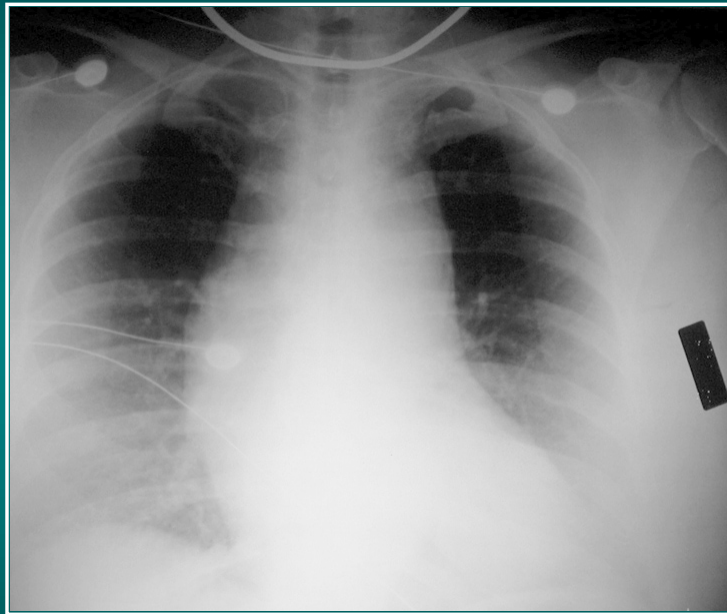


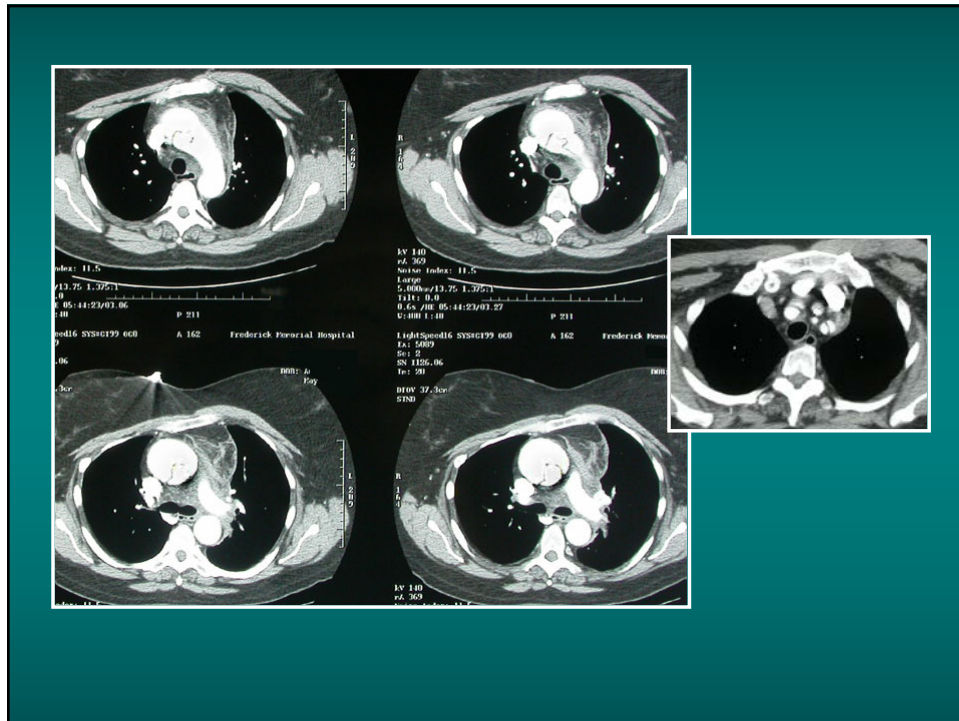
Case Presentation

- *58 yo female*
- *HTN*
- *No known previous heart disease*
- *Sudden onset of Sharp CP radiating to the back,*

1



2



3

Role of echo in Ao dissection IRAD - 628p

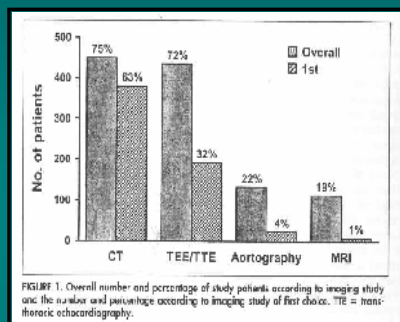


TABLE 3 Sensitivity of the Four Imaging Modalities

| Image Modality | Overall | Stanford Classification of Aortic Dissection | |
|----------------|------------------|--|------------------|
| | | Type A | Type B |
| TEE | 88% (170/193) | 90% (144/158) | 80% (28/35) |
| CT | 93% (353/379) | 93% (180/193) | 93% (173/186) |
| MRI | 100% (9/9) | 100% (2/2) | 100% (7/7) |
| Aortography | 87% (21/24) | 87% (13/15) | 89% (8/9) |

Moore et al. Am J Cardiol 2002;89:1235

4

Echo in Ao Dissection

What to look for?

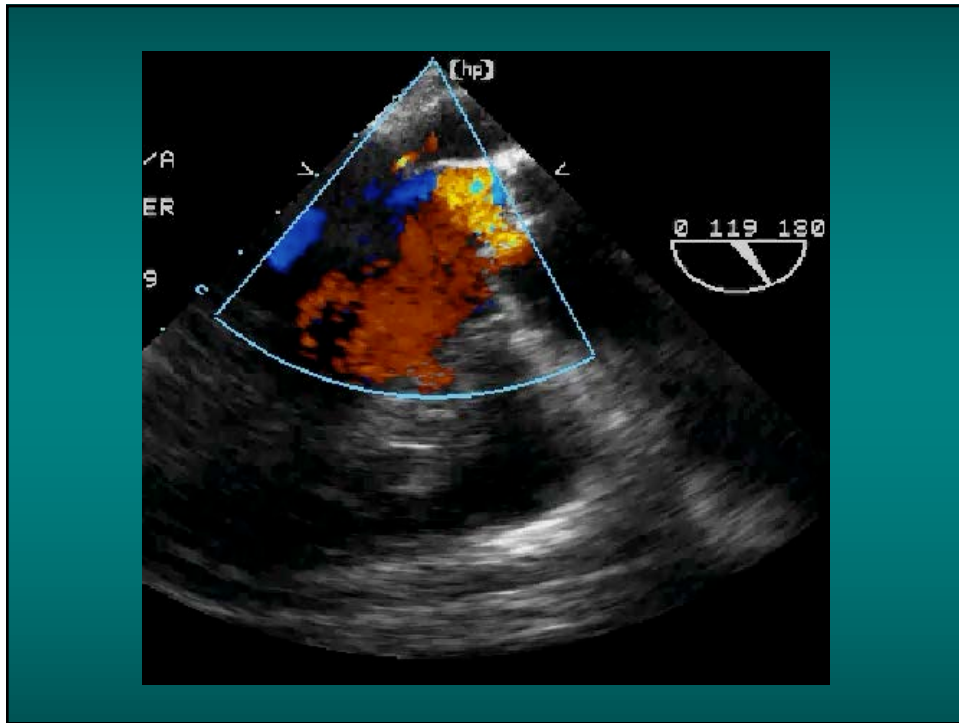
5

Echo in Ao Dissection

What to look for?

- Flap
- True and false lumen
- Tear: Site of communication
- Complications:
 - AI: examination of Ao valve and root
 - Hematoma: intramural and external bleeding
 - Pericardial effusion / Tamponade
 - Ao branches involvement: Myocardial Ischemia, Carotids.
- LV function and other valvular disease

6



7

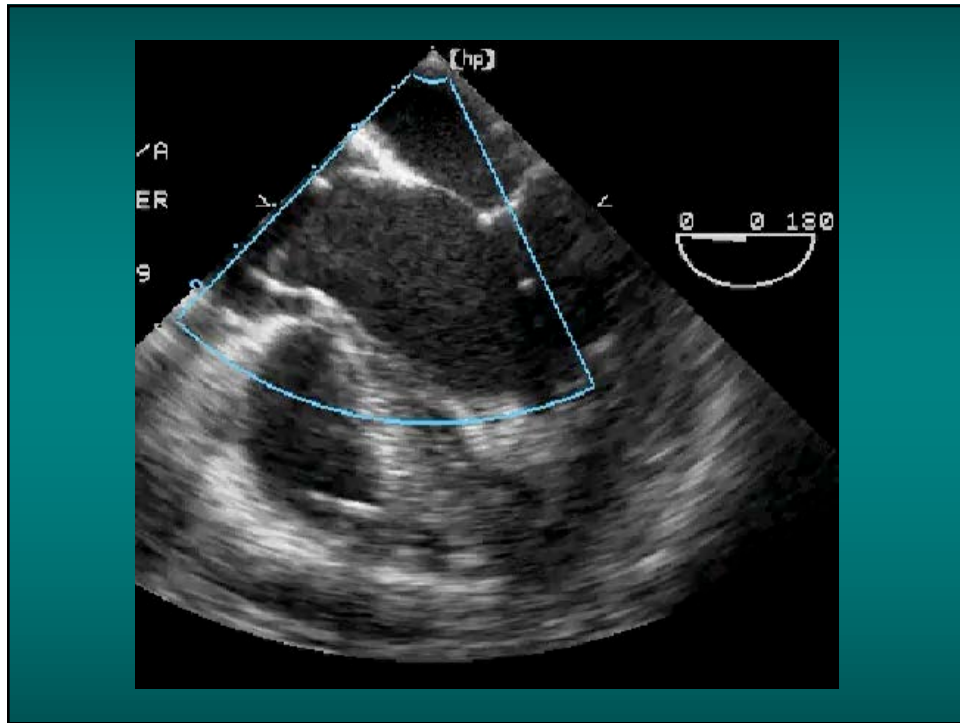
Echo in Ao Dissection

AI mechanisms

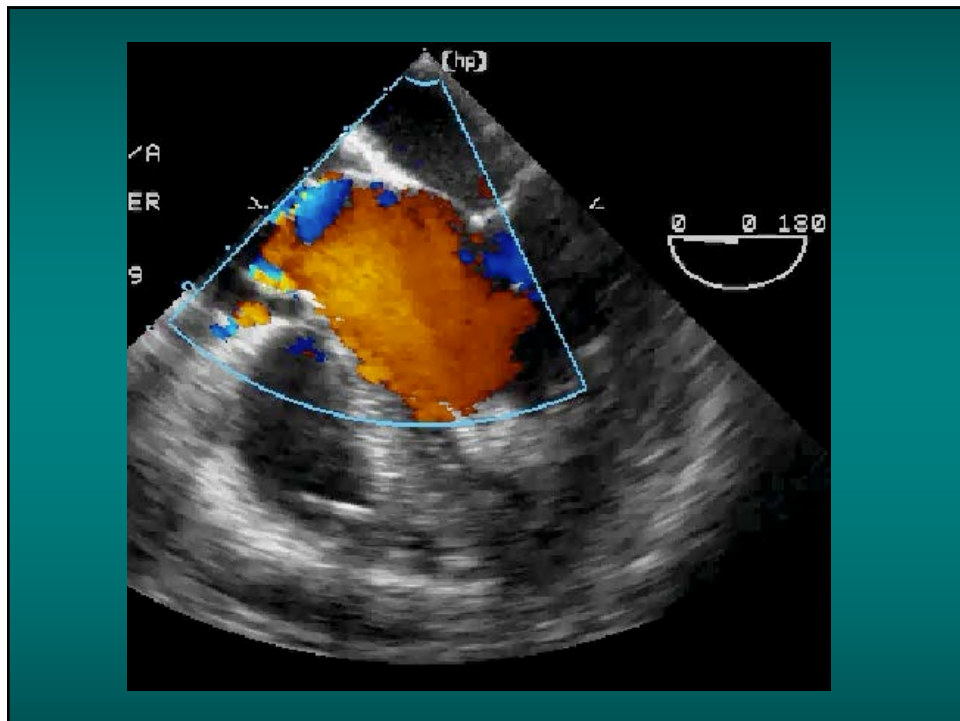
| | | |
|-----------------------------------|----------------------------|---------------------------------|
| <p>Incomplete leaflet closure</p> | <p>Ao leaflet prolapse</p> | <p>Dissection flap prolapse</p> |
|-----------------------------------|----------------------------|---------------------------------|

Movsowitz et al. JACC 2000;36:884-90

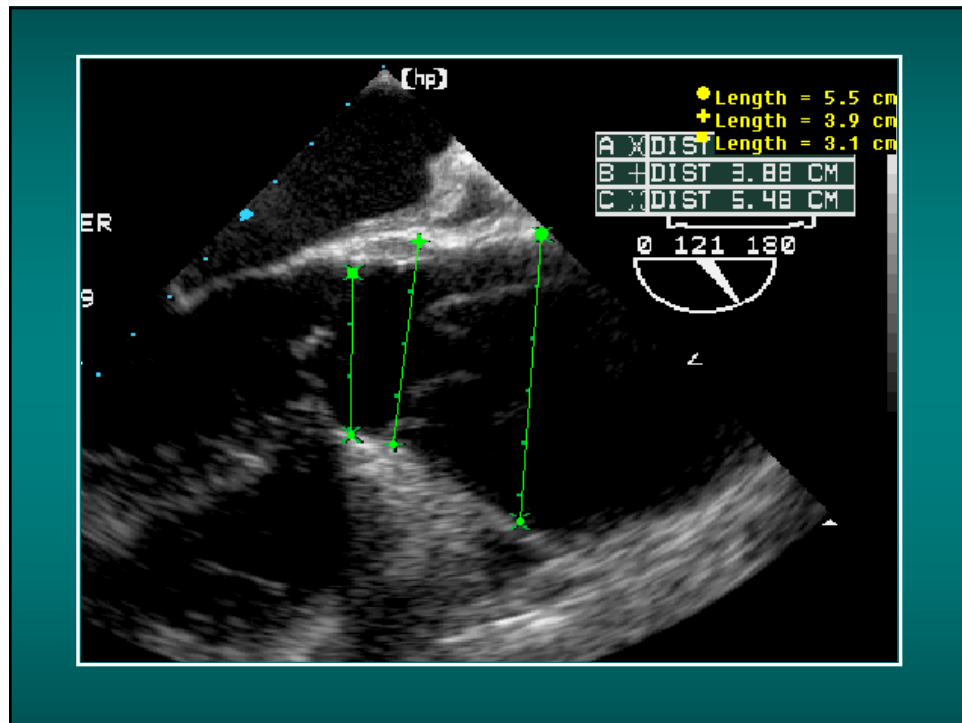
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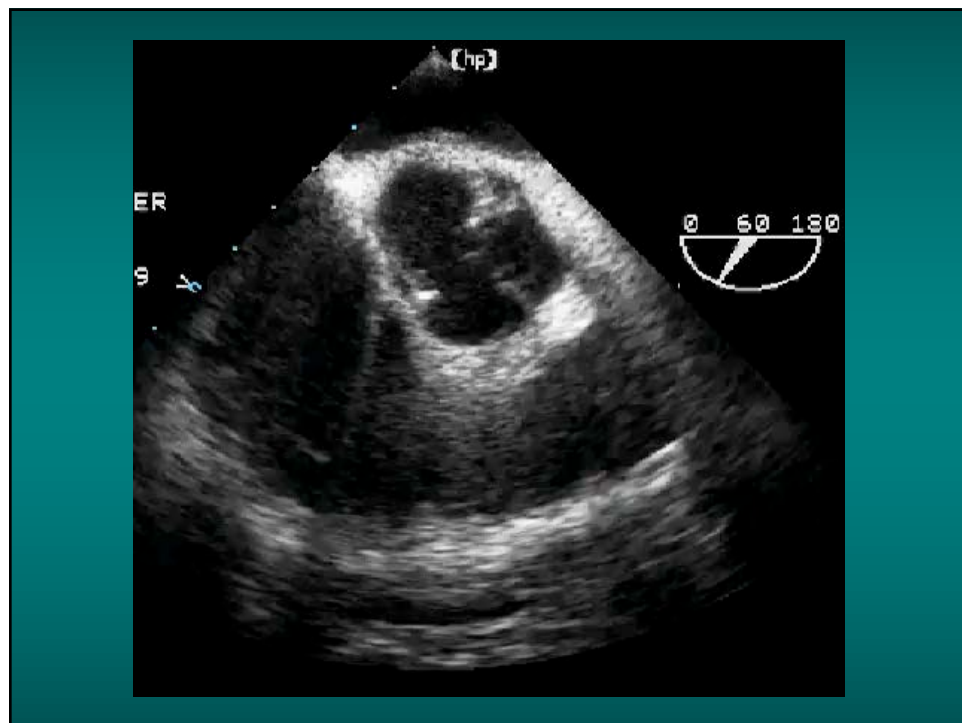
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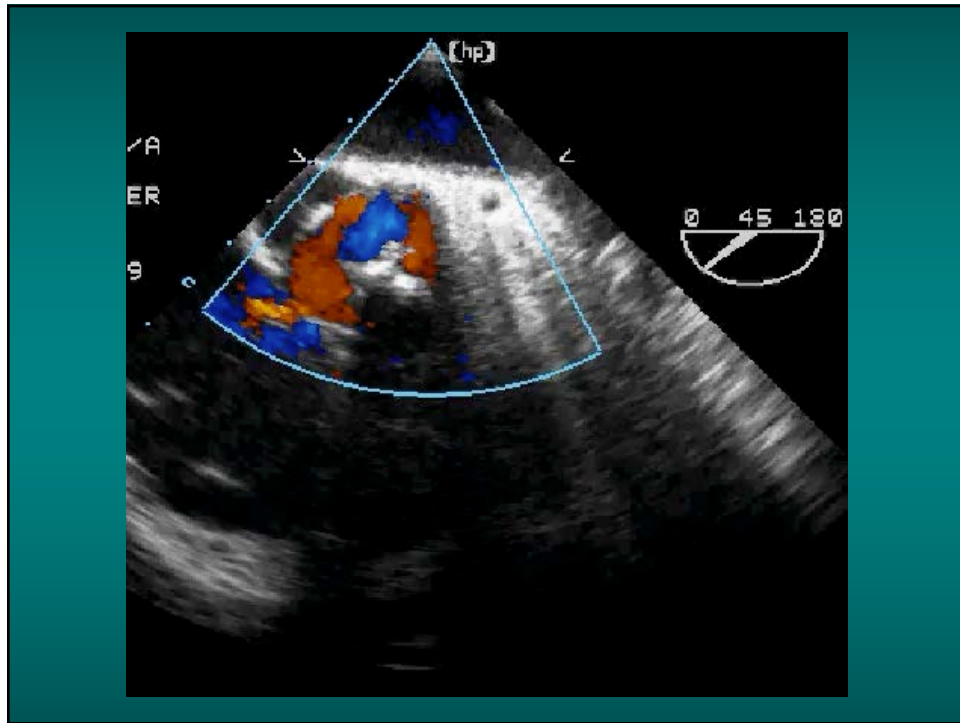
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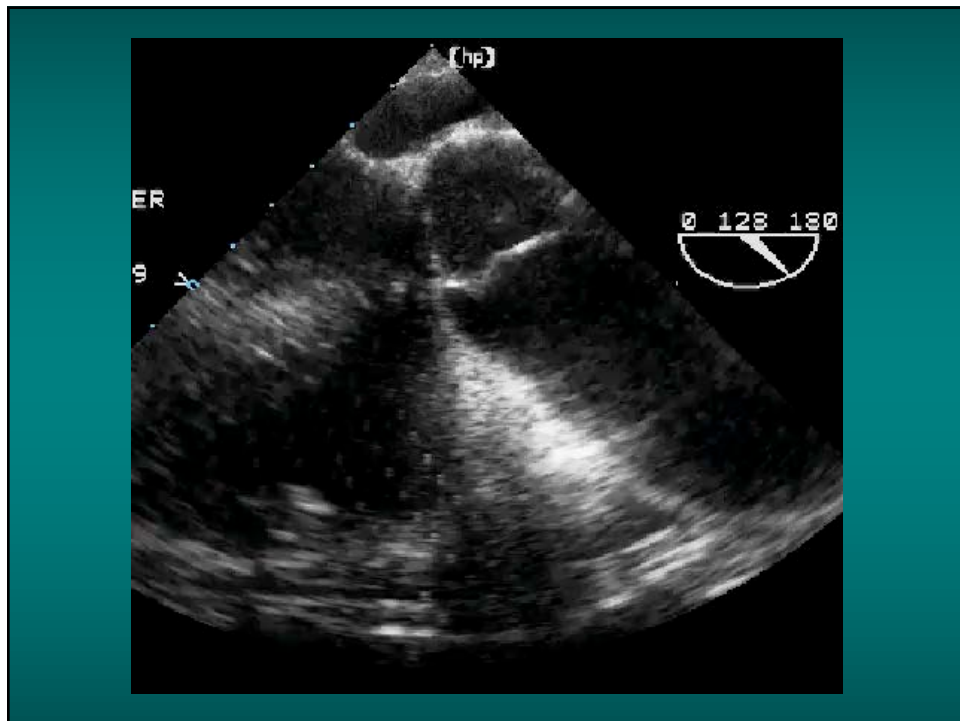
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12



13



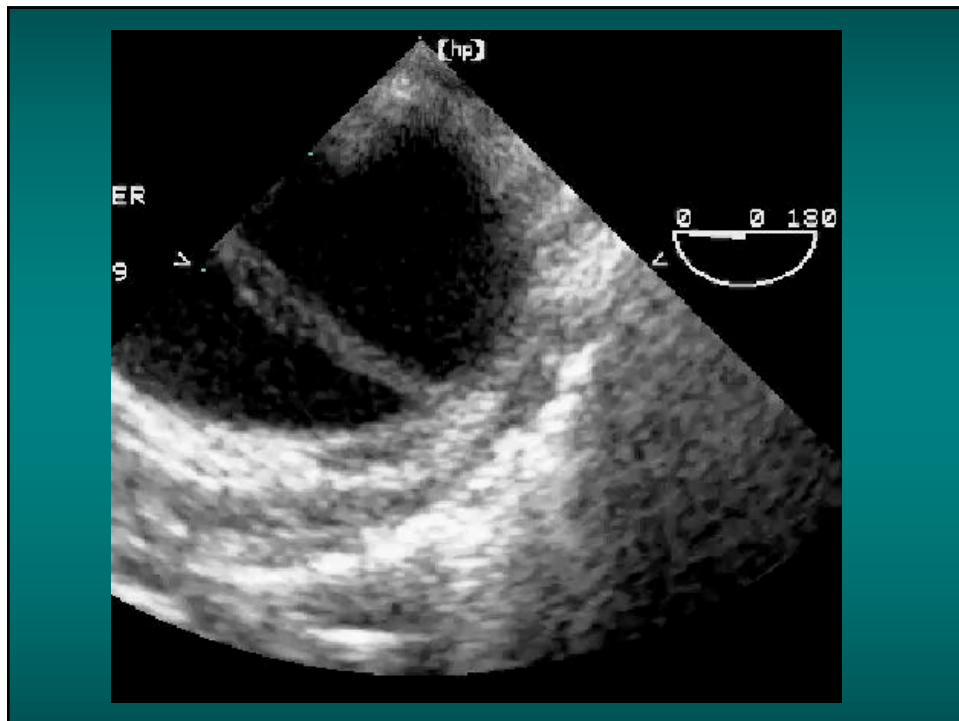
14

Echo in Ao Dissection

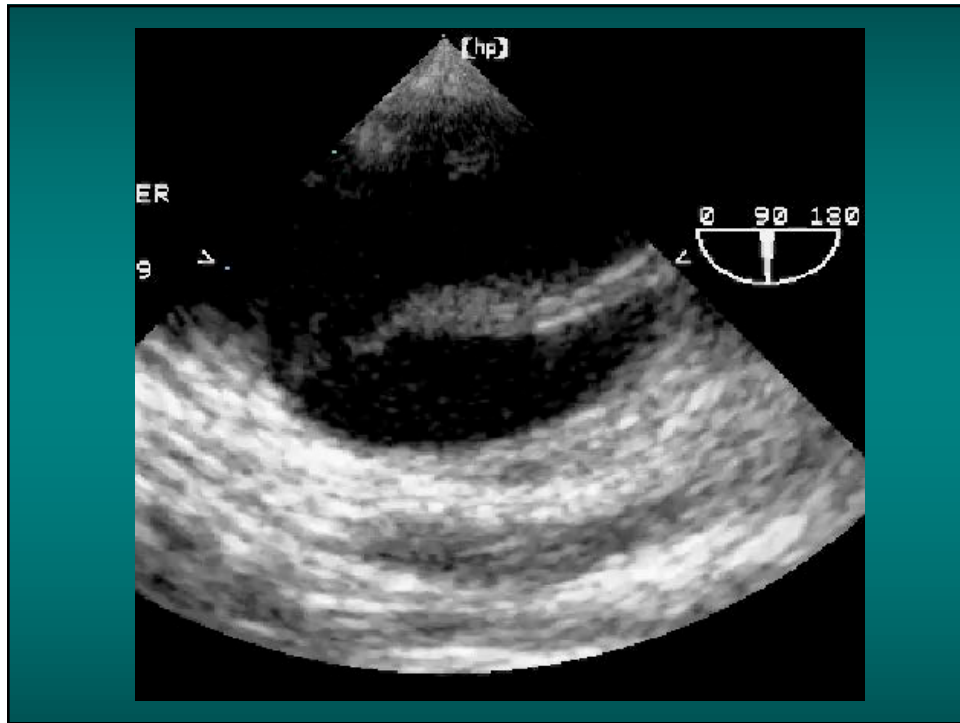
Dissection Flap

- Key for diagnosis. Spiral shape along the aorta.
- Most important features to assess:
 - » Extension: Type I,II,III
 - » Movement: independent of arterial wall
 - » Integrity: tears

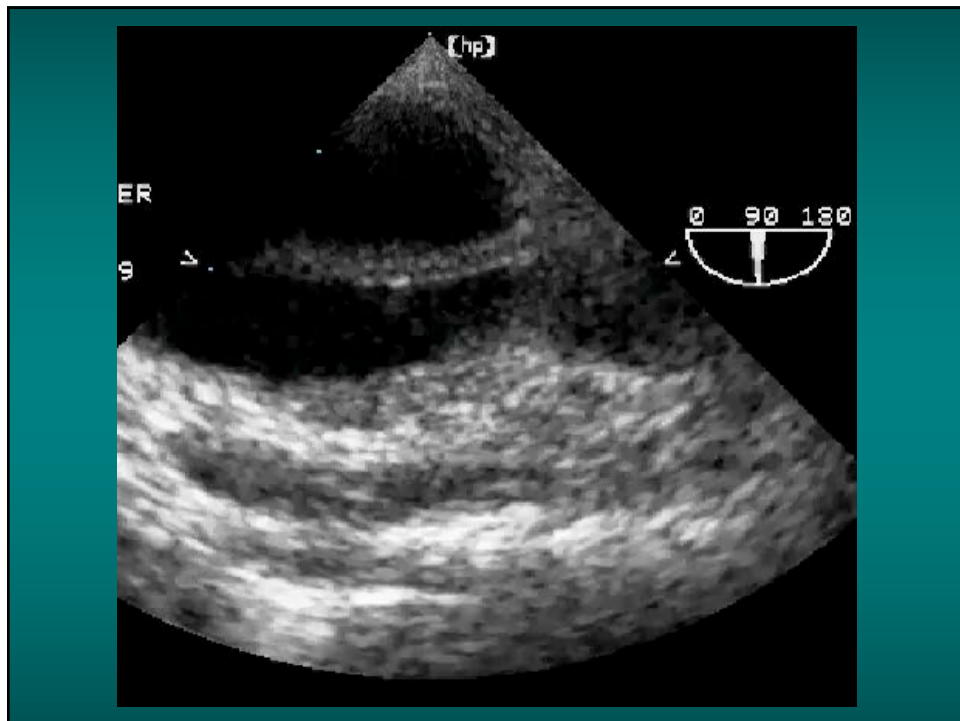
15



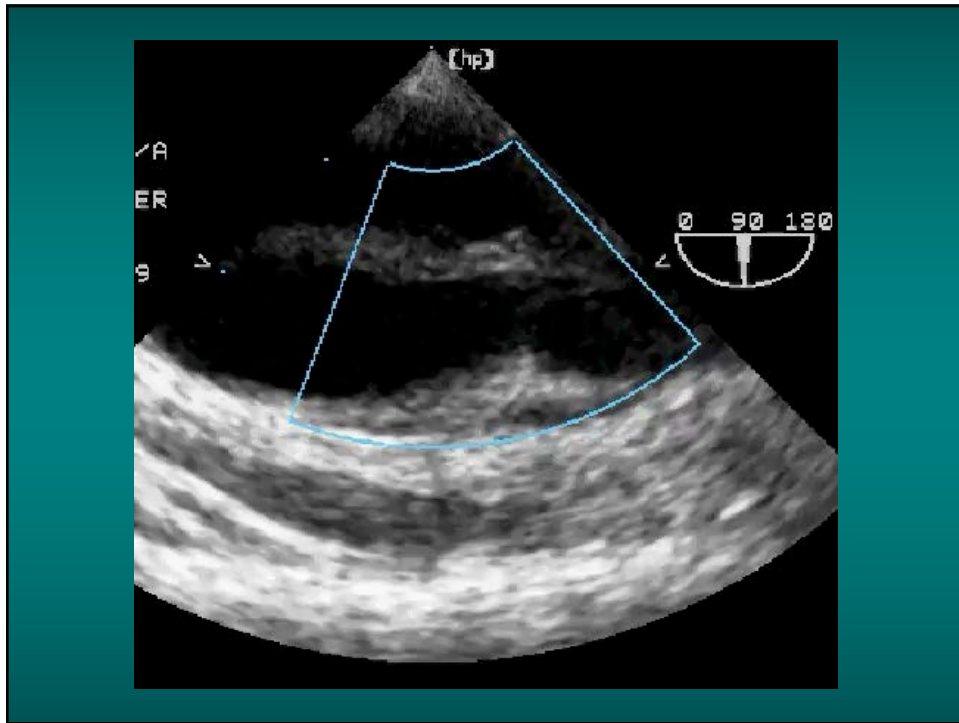
16



17



18



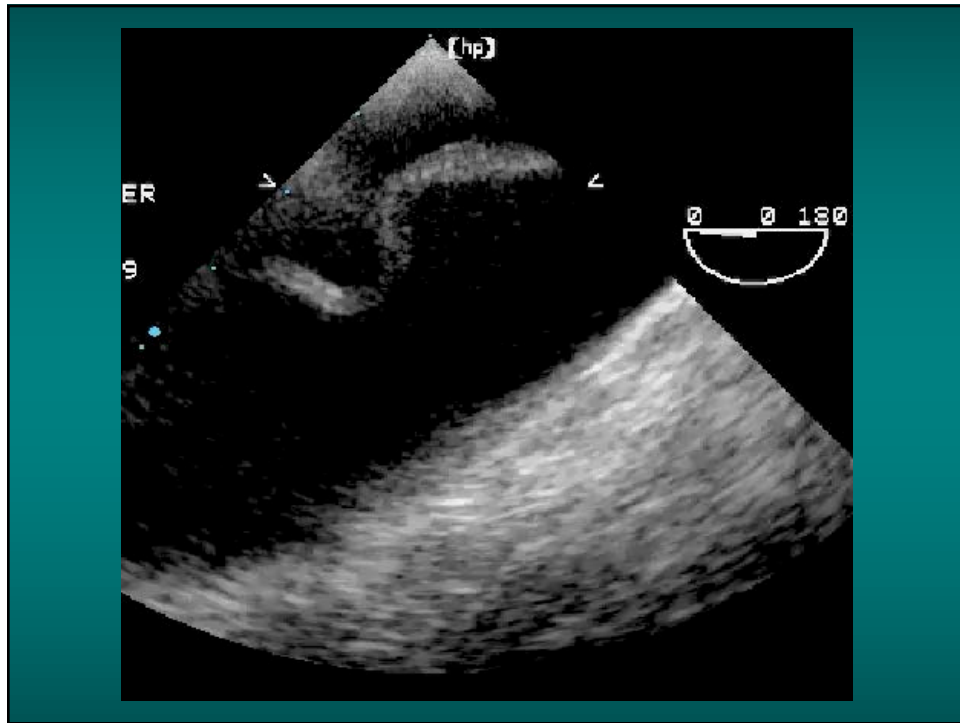
19

Echo in Ao Dissection

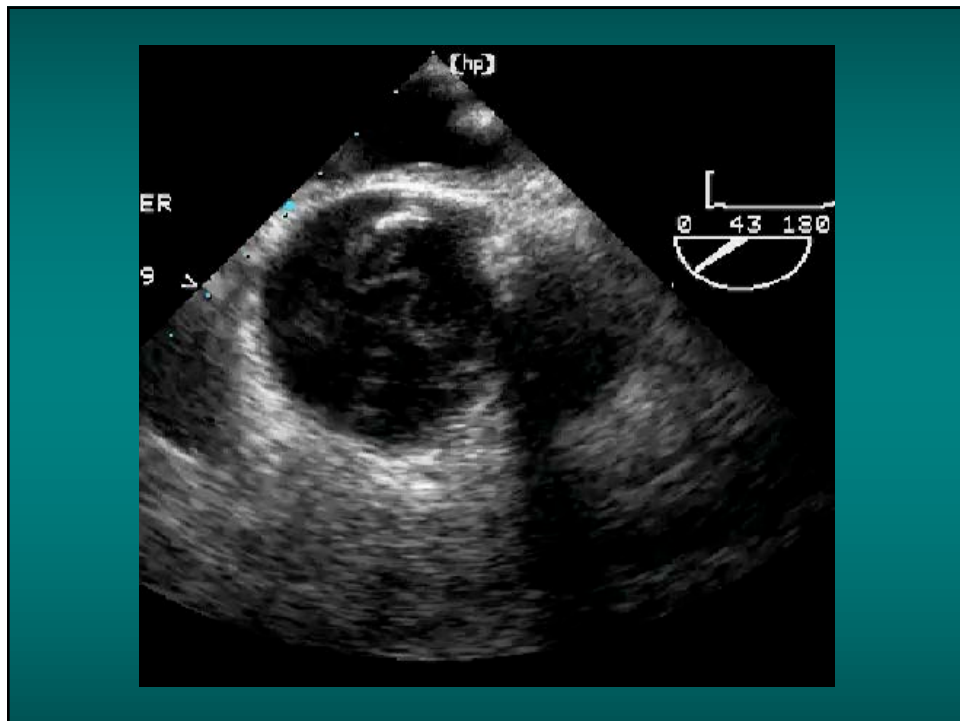
True and False lumen

| | True | False |
|----------------------|------------------------|-----------------------------|
| Expansion | Systole | Diastole |
| Flow | Syst. Forward | Reversed, delayed or absent |
| Spont. echo contrast | No | yes |
| Other | Syst jet directed away | thrombus |

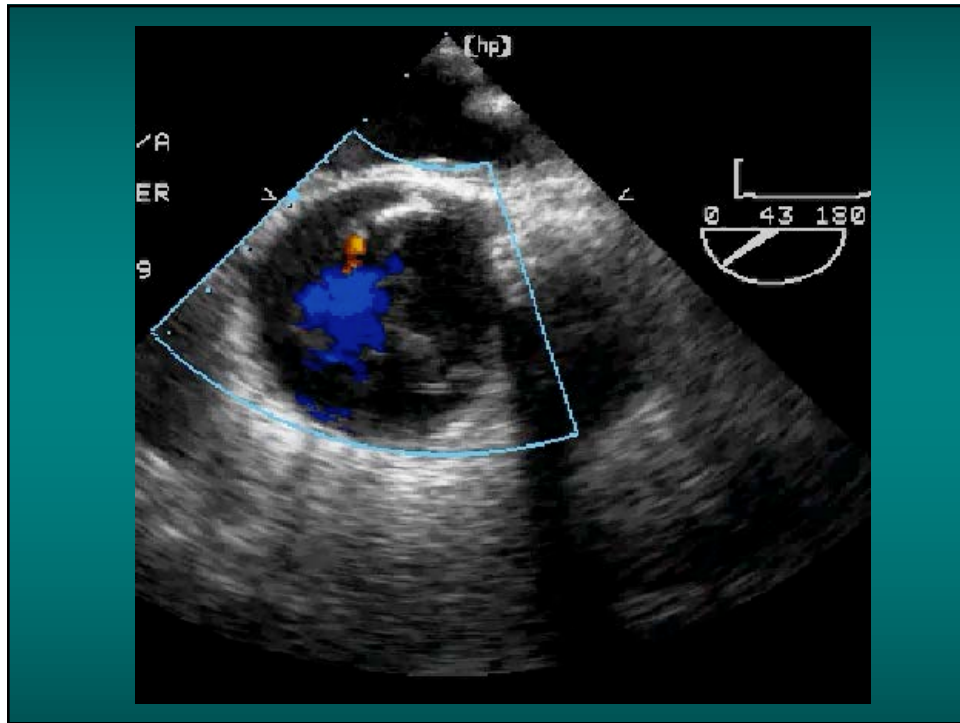
20



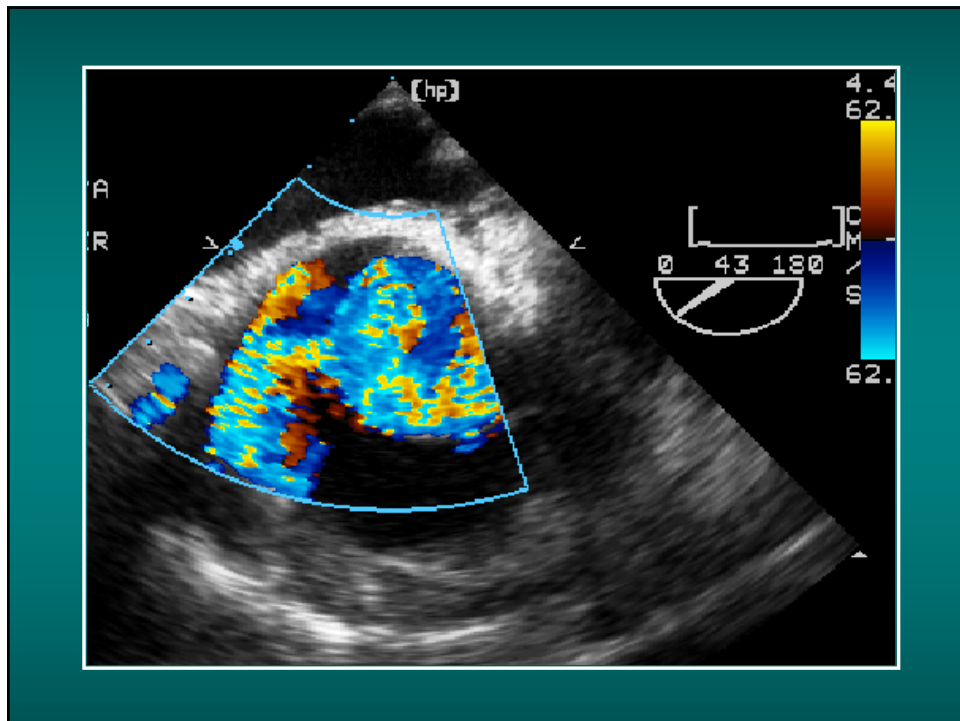
21



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23



24

Echo in Ao Dissection

Conclusions

- Cons:
 - Blind spot
 - Less accurate than MRI
- Pros:
 - Accuracy: Sens / specificity
 - Easy to do, even if patient is unstable
 - Not expensive
 - Complete info: Assesment of LV function, AI, tamponade and Ao branch involvement.

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