Multimodality Imaging of Diseases of the Thoracic Aorta in Adults

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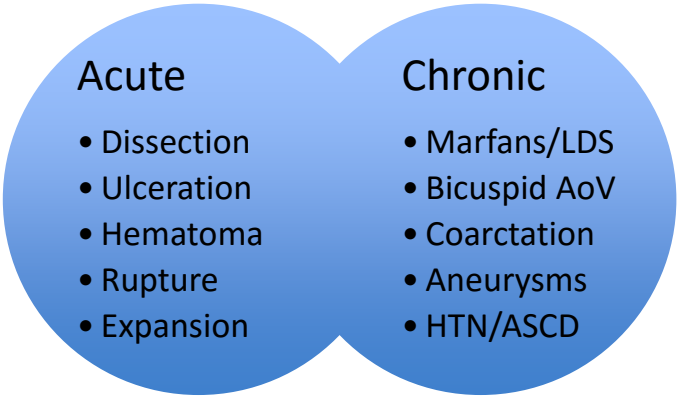
Aortic Disease



Q1

- A Type B aortic dissection is defined as a dissection that involves:
  A. Aortic arch
  B. Ascending aorta
  C. Aortic arch and descending aorta
  D. Descending aorta

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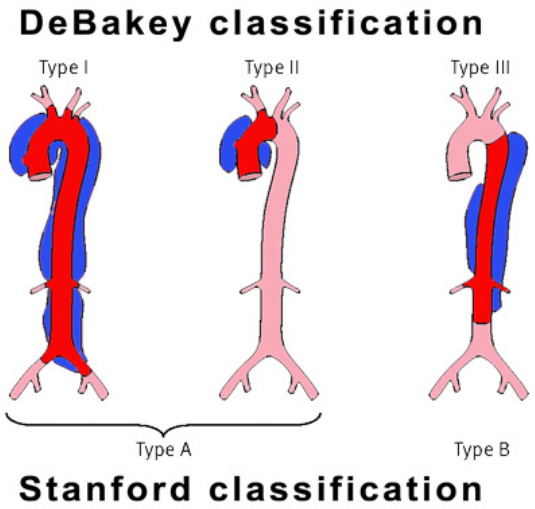
- Ascending Ao
- Ao Arch
- Descending Ao
- Branch arteries
- Ao valve



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Q2

- Repair of an asymptomatic ascending aneurysm is indicated for an aneurysm of:
  A. 4.0cm
  B. 4.5cm
  C. 5.0cm
  D. 5.5cm
  E. 6.0cm

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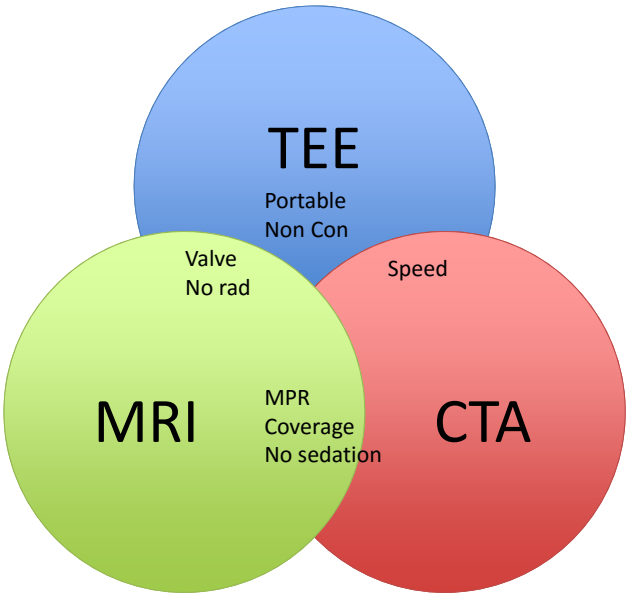
TTA: Size Matters

Symptomatic	Any size
Asymptomatic Asc	
Degenerative	≥5.5cm
Genetic Syndrome	4.0 – 5.0cm
BAV	≥5.5cm
	≥5.0cm if additional RF
	≥4.5cm if surgery for valve
Asymptomatic Arch	≥5.5cm
Asymptomatic Desc	≥5.5cm
Low risk	≥5.5cm
High risk	≥6.0cm

Relative Comparison of Modalities for Aortic Imaging

	TTE	TEE	CT	MRI
Portability	+	+	-	-
Coverage	-	+/-	+	+
Sedation	-	+	-	-
Multiplanar Recon	-	-	+	+
Contrast	-	-	+	+
Radiation	-	-	+	-
Speed	+	+	+	-
Ao Valve	+	+	-	+



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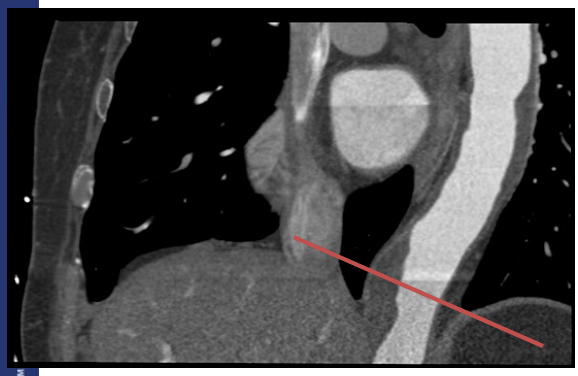
Intramural Hematoma



Aortic Dissection

- 80 y/o male s/p 2V CABG 3 weeks ago
- P/w Dizziness and weakness
- TTE

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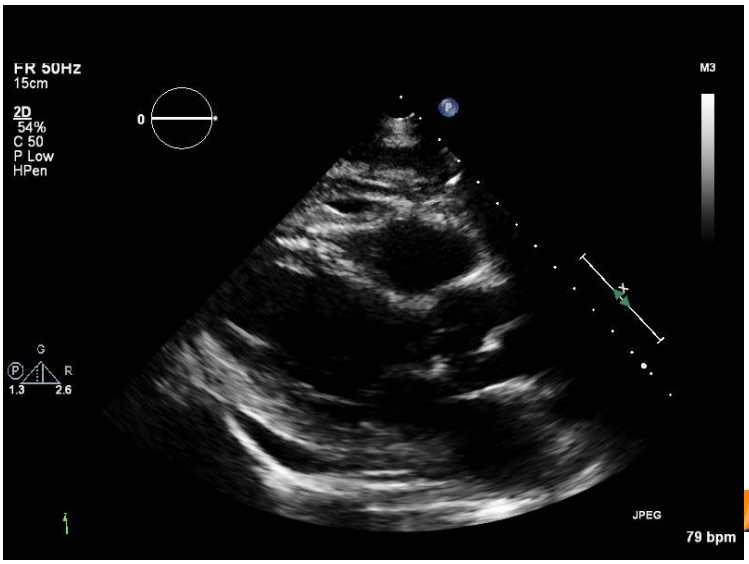
TTE



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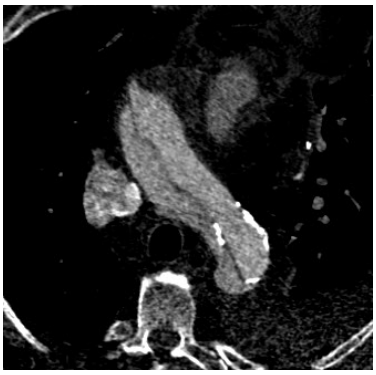
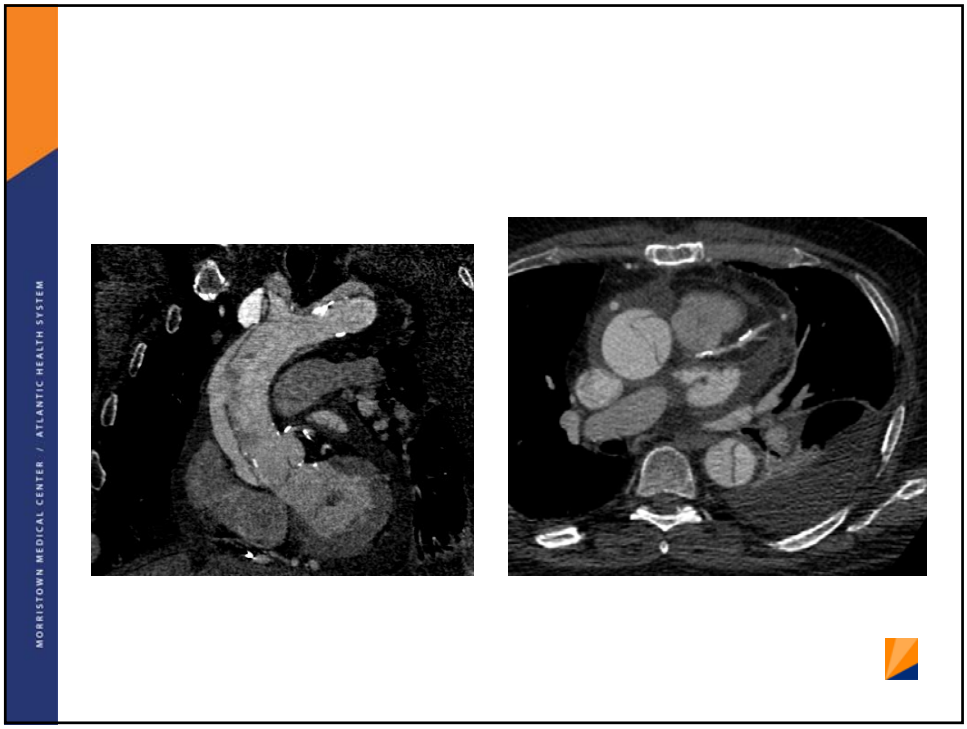
CTA

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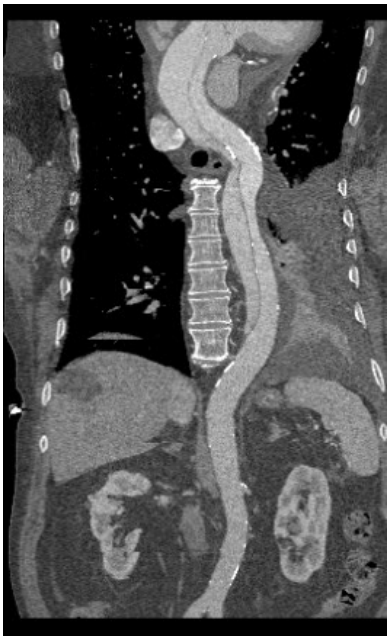


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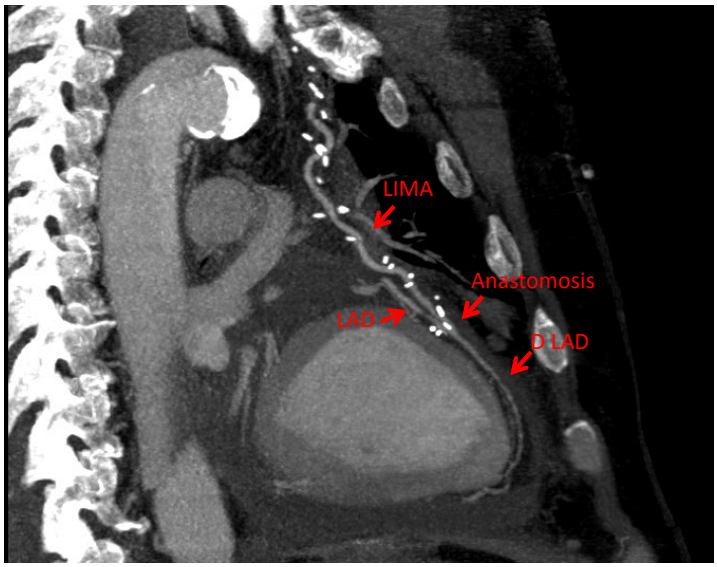
METRIC



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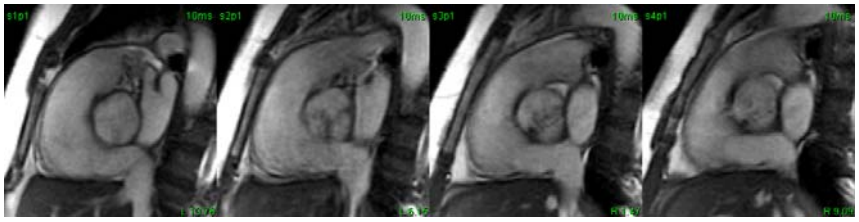
Bicuspid Aortic Valve



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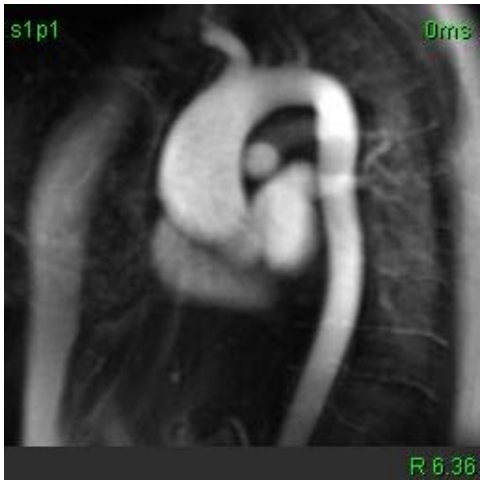
MRA



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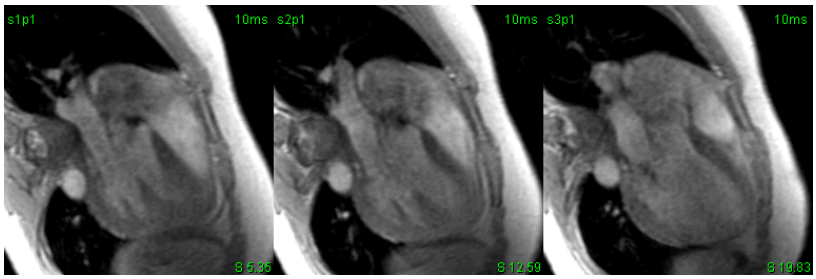

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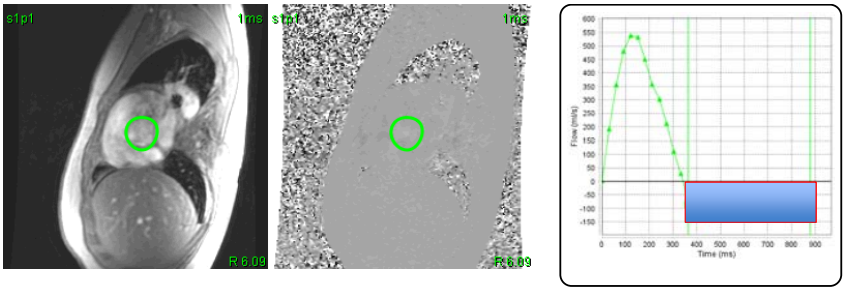
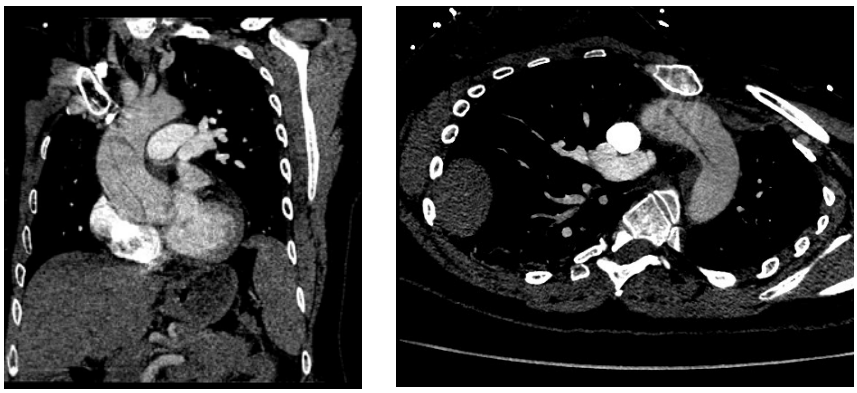
Aortic Insufficiency



35 y/o female with sudden onset dyspnea



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Coarctatipn

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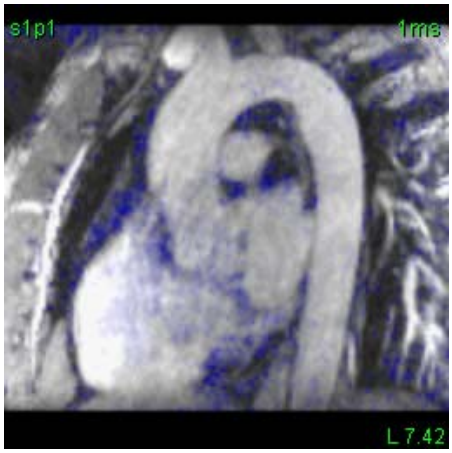
4D Flow



Summary

- Comprehensive aortic imaging requires a multimodality approach.
- Choose imaging based on acuity and what your institution does well.
- Don't forget the valve & don't forget the aorta.