Echocardiography in aortic diseases: EAE recommendations for clinical practice

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ACCF/AHA Guideline

2010 ACCF/AHA/AATS/ACR/ASA/SCA/SCAI/SIR/STS/SVM Guidelines for the Diagnosis and Management of Patients With Thoracic Aortic Disease

more of asc aorta seen in long axis than in short axis
Normal size of thoracic aortic segments.

- Aortic arch: 22-36 mm
- Tubular ascending aorta: 22-36 mm (15 ± 2 mm/m²)
- Sinotubular junction: 22-36 mm (15 ± 1 mm/m²)
- Sinuses of Valsalva: 24-40 mm (18 ± 2 mm/m²)
- Aortic annulus: 20-31 mm (13 ± 1 mm/m²)

n=1600 pts with aortic aneurysm
Elefteriades Ann Thorac Surg 2002;74:S1877
Annular dilatation

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Dilatation and effacement of sino-tubular junction (note: Marfan + Ao > 4.5 cm surgical indication)

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Bicuspid valve (note: surgical indication if Ao > 5.0 cm)
Aortic aneurysm

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Sinus Valsalvae aneurysm

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Aortic atheroma
aortic atheroma and thrombus
aortic atheroma and thrombus
28 year old patient, Marfan, dissection of desc aorta; asc aorta?
Summary

• TEE most convenient tool to examine the thoracic aorta
• attention to the aortic root, especially in aortic valve disease
• acute aortic syndromes are often difficult to recognize and often misinterpreted in the beginning, with potential catastrophic consequences
• if in doubt, don’t hesitate to use other imaging technique
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