

Evidence Discussion (PVD 6.2)

Thoracic Aortic Aneurysm (TAA)

Thoracic aortic aneurysms may enlarge over time. Once an aneurysm meets specific size criteria, its risk of rupture as well as the high mortality risk associated with rupture exceeds the risk of surgical intervention. Surveillance recommendations for ascending and descending thoracic aortic aneurysms have been addressed in several major studies.^{1, 2}

The location of the thoracic aorta within the chest cavity limits the ability of noninvasive ultrasound to monitor aneurysm size. American College of Radiology recommendations are for CT/MR imaging to monitor the thoracic aorta diameter to determine when surgical intervention is needed.

Transesophageal echocardiography has only been demonstrated to be effective for surveillance if CT/MR imaging is contraindicated.^{3,4}

Thoracic aortic aneurysms may be isolated; however, they may extend below the diaphragm to include portions of the abdominal aorta. Abdominal aortic aneurysms should be followed according to their designated guidelines but may be included with thoracic imaging for certain planned interventions. Certain genetic and familial aneurysm syndromes may have a higher risk of TAA incidence and may warrant additional imaging for detection and surveillance.⁵ Additionally, most surgical approaches for thoracic aortic repair require CT/MR imaging for preoperative planning.⁶

References

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