

82 y/o male with chest pain

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Coronal CTA



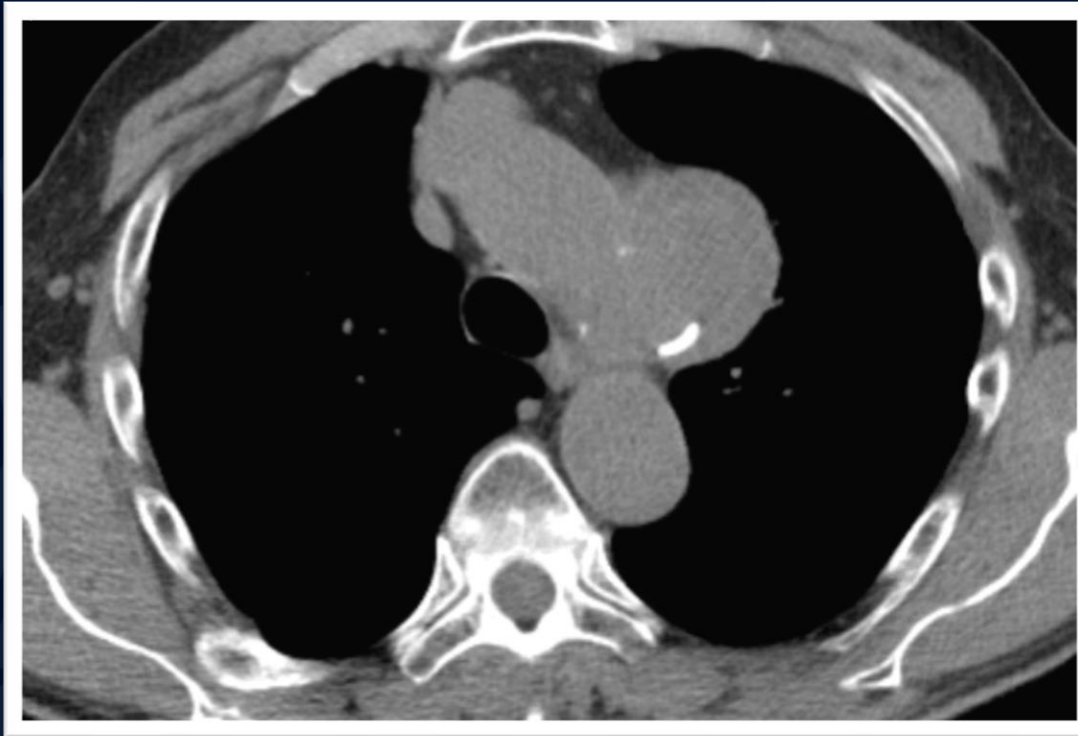
Coronal CTA



Coronal CTA



Axial CTA

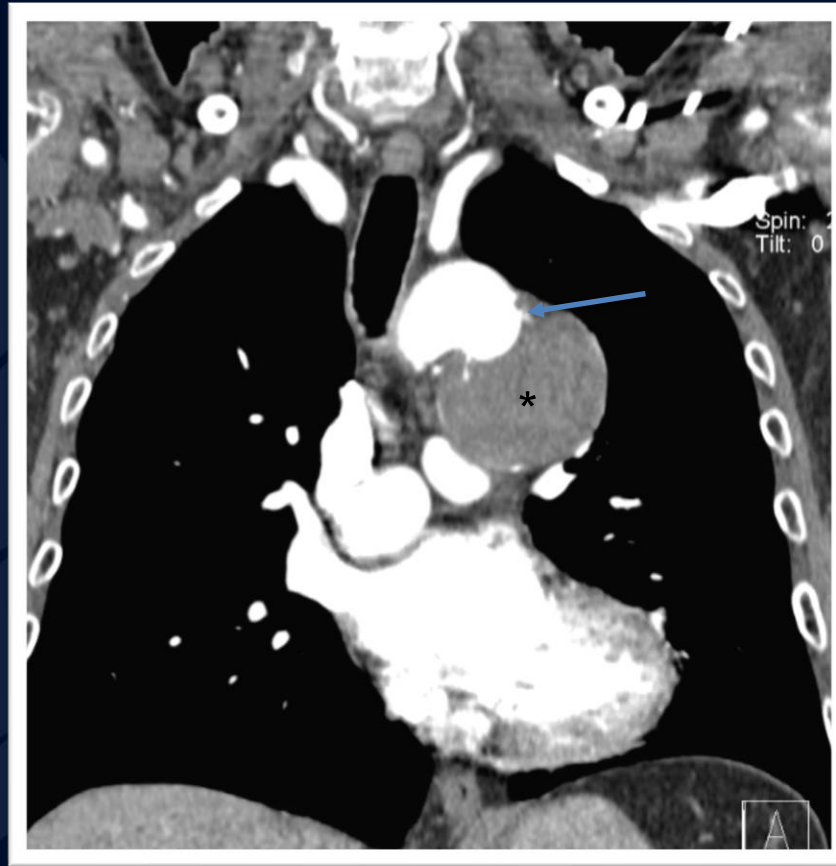


Axial CTA w/o contrast

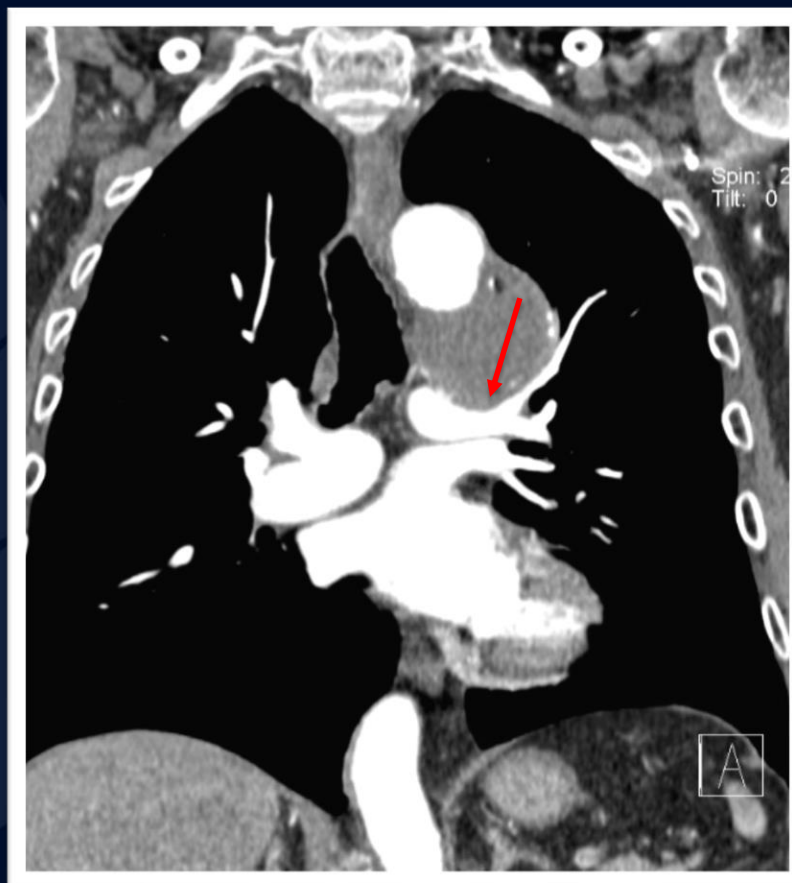
A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. It features detailed vein patterns and a lobed edge.

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Thoracic Aorta aneurysm



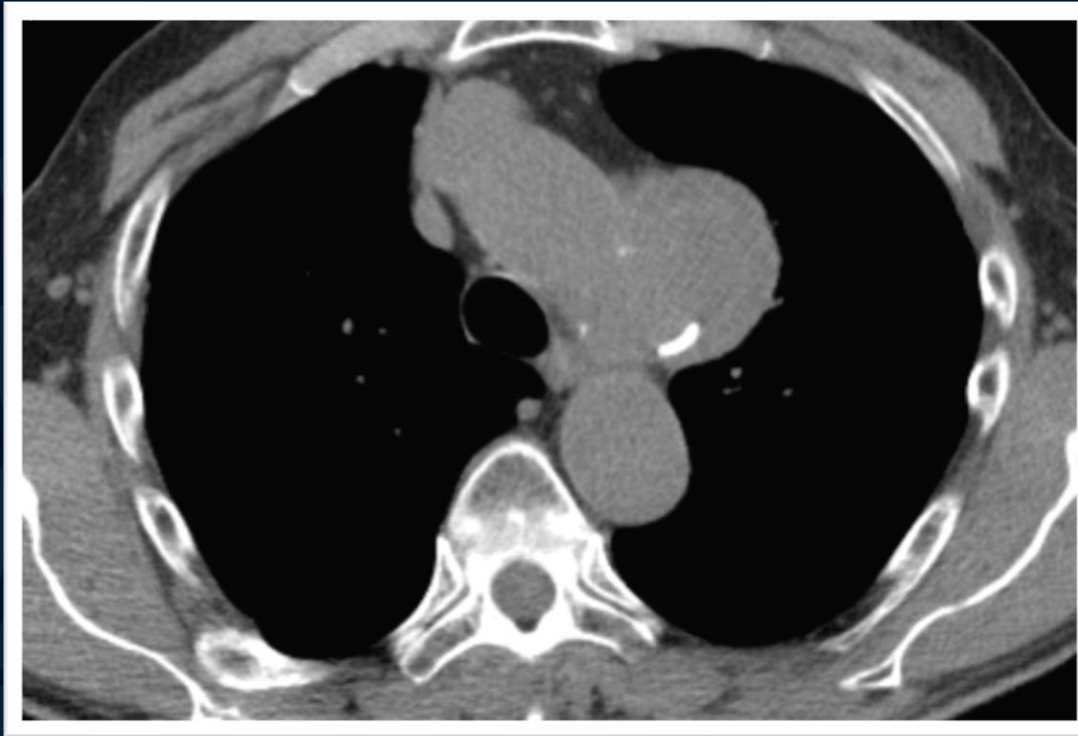
Coronal CTA showing a saccular aneurysm (*) of the inferior aortic arch just distal to the take-off of the left subclavian artery. Small outpouching of contrast into the aneurysm sac (arrow).



Coronal CTA showing the saccular aneurysm of the inferior aortic arch with some peripheral calcifications. Aneurysm demonstrates mass effect on the left pulmonary artery (arrow)



Axial CTA demonstrating a saccular outpouching of the inferior aortic arch, with an outpouching of contrast into the aneurysm sac (*).



Axial CTA w/o contrast shows no hyperdense material within the aneurysmal sac to indicate acute thrombus.

Thoracic Aortic Pseudoaneurysm

Imaging Features

- Saccular dilatation of the aorta.
- Narrow neck at the origin in the aorta.
- Wide neck in a saccular aneurysm suggests mycotic origin
- Hyperdense material in the aneurysmal sac suggests acute thrombus
- +/- Atherosclerosis

Thoracic Aorta Aneurysm

General Features

- True Aneurysm
 - All 3 layers of the aortic wall involved without disruption
 - Generally associated with fusiform dilatation of the aorta
 - Usually involves entire circumference of the aorta
 - Often extends over a large segment of the vessel
 - Most commonly due to atherosclerosis

Thoracic Aorta Aneurysm

General Features

- False Aneurysm – “Pseudoaneurysm”
 - Intimal disruption (often media too)
 - Blood products contained by adventitia or periadventitial tissues
 - Saccular in shape
 - Narrow neck at the origin
 - Most commonly due to trauma, penetrating atherosclerotic ulcers, and mycotic aneurysm (wide neck saccular aneurysm).
 - Trauma – MC location for aneurysm is the aortic isthmus
 - Atherosclerosis – Diffuse process and can occur anywhere along the aorta
 - Mycotic – Tendency to involve ascending aorta likely due to proximity to regions affected by endocarditis

References

1. Agarwal, P. P., Chughtai, A., Matzinger, F. R., & Kazerooni, E. A. (2009). Multidetector CT of Thoracic Aortic Aneurysms. *RadioGraphics*, 29(2), 537-552. doi:10.1148/rg.292075080'
2. Litmanovich, D., Bankier, A. A., Cantin, L., Raptopoulos, V., & Boiselle, P. M. (2009). CT and MRI in Diseases of the Aorta. *American Journal of Roentgenology*, 193(4), 928-940. doi:10.2214/ajr.08.2166