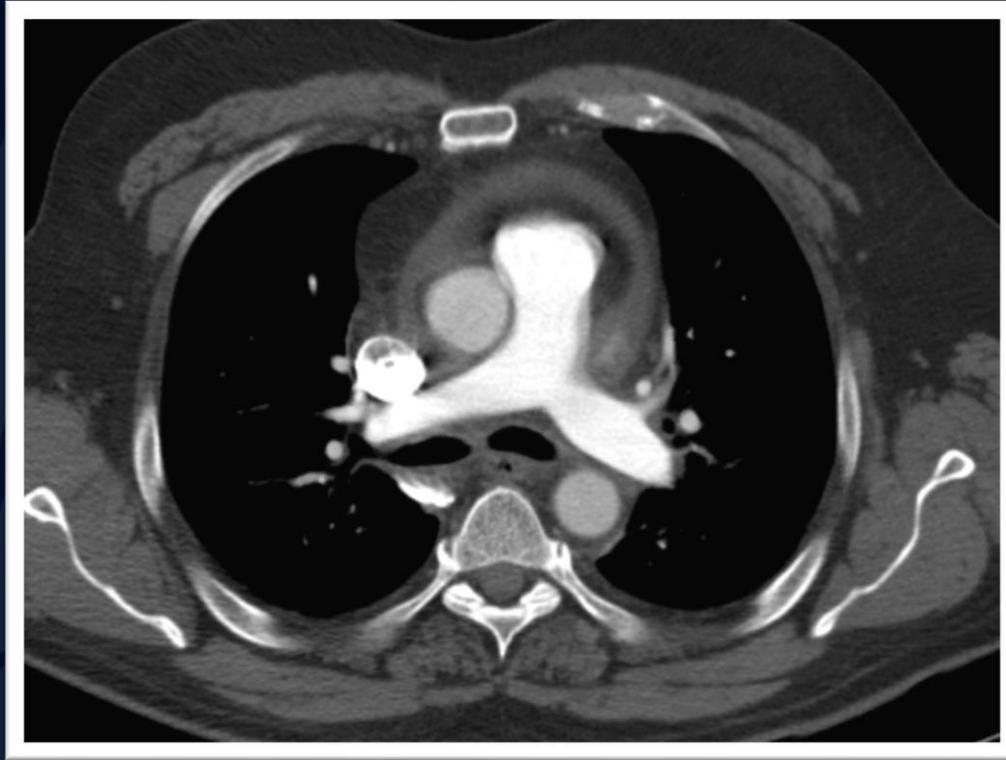
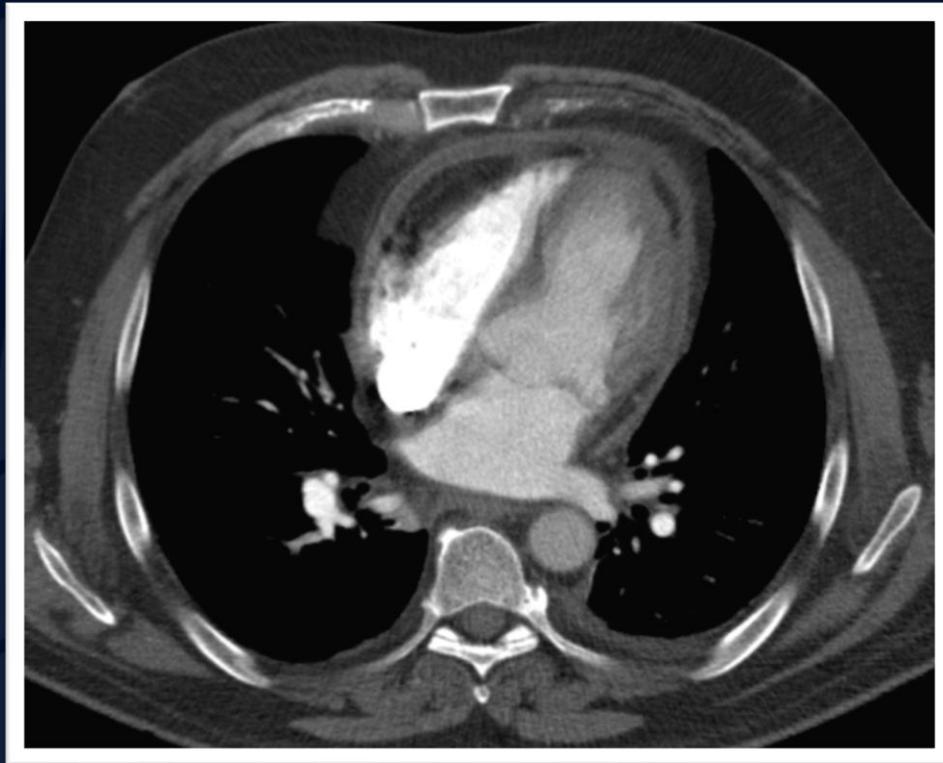


58 y/o male with chest pain and shortness of breath

Edward Gillis, DO



Axial CTA



Axial CTA



Coronal CTA



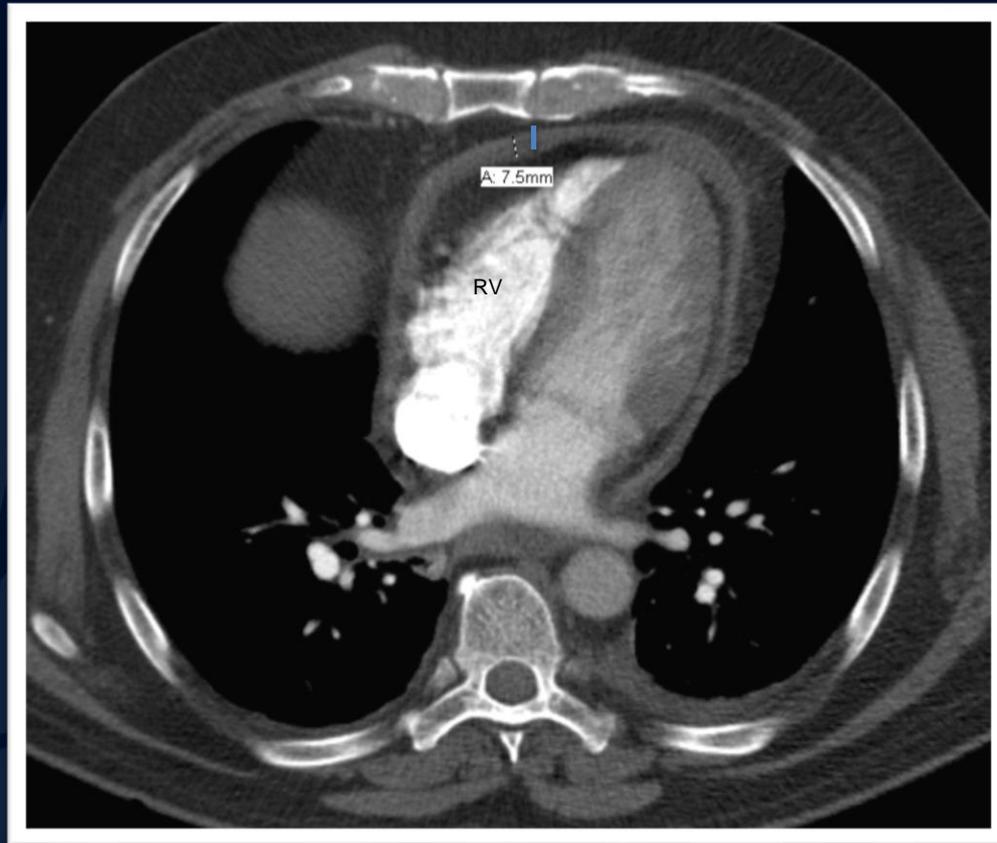
Sagittal CTA

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.

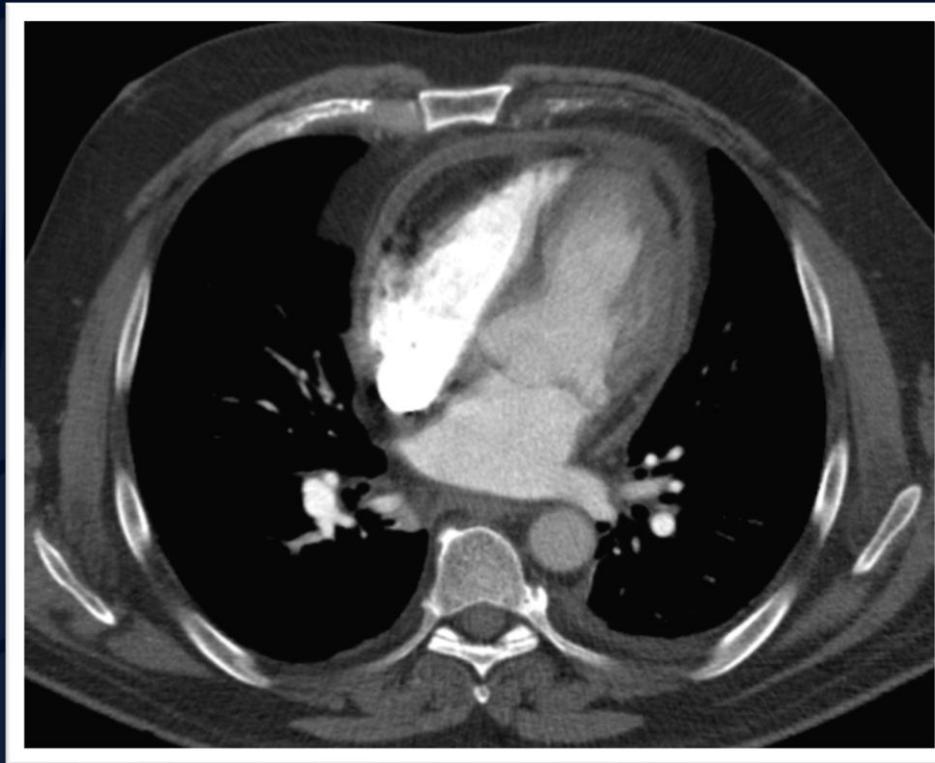
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A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. The leaf has a prominent central vein and several smaller veins branching off it. The background of the slide is a solid dark blue.

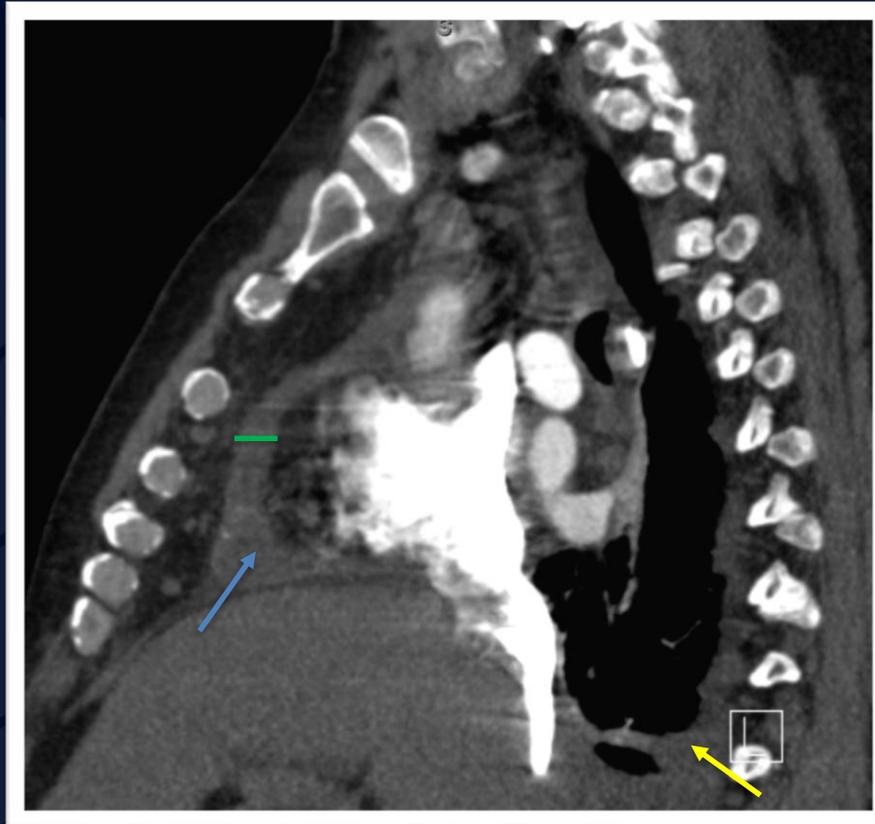
Constrictive Pericarditis



Axial CTA showing abnormally thickened pericardium. Right ventricle (RV) is tubular in configuration.



Axial CTA again demonstrating thickened pericardium with pericardial effusion and tubular configuration of right ventricle.



Sagittal CTA again demonstrates abnormal pericardial thickening and pericardial effusion (blue arrow). Pleural effusion is seen as a result of congestion secondary to constrictive pericarditis (yellow arrow).

Constrictive Pericarditis

Imaging Features

- Decreased right ventricular volume and narrow tubular configuration
- Sigmoid-shaped or convex left ventricular septum
- Abnormally thickened pericardium (>4mm)
- Pericardial effusion
- Systemic venous dilatation (especially IVC)
- Hepatomegaly, ascites
- Pericardial calcifications

Constrictive Pericarditis

General Features

- The two most frequent causes in developed countries are cardiac surgery (CABG) and viral infection.
 - Prior radiation, connective-tissue disease, uremia, neoplasm, non viral infection are additional causes
- Patients generally present with symptoms of heart failure
 - Orthopnea, dyspnea, fatigue

Constrictive Pericarditis

General Information

- Clinically difficult to distinguish between constrictive pericarditis and restrictive cardiomyopathy
 - Important to make the distinction, as patients with constrictive pericarditis may benefit from pericardial stripping treatment
- TTE useful for demonstrating constrictive or restrictive physiologic change
 - Not highly accurate in depicting pericardial thickening
- TEE useful for evaluation of pericardial thickening, but is invasive and field of view is narrow

Constrictive Pericarditis

General Information

- CT and MRI are excellent in evaluation of pericardium
 - Normal thickness $< 2\text{mm}$
 - Thickness $> 4\text{mm}$ with clinical signs of heart failure is highly suggestive of constrictive pericarditis
 - CT is highly sensitive for pericardial calcifications
 - Neither pericardial thickening nor calcifications is diagnostic of constrictive pericarditis unless accompanied by symptoms of physiologic restriction

References

1. Wang, Z. J., Reddy, G. P., Gotway, M. B., Yeh, B. M., Hetts, S. W., & Higgins, C. B. (2003). CT and MR Imaging of Pericardial Disease. *RadioGraphics*, 23(Suppl_1). doi:10.1148/rg.23si035504