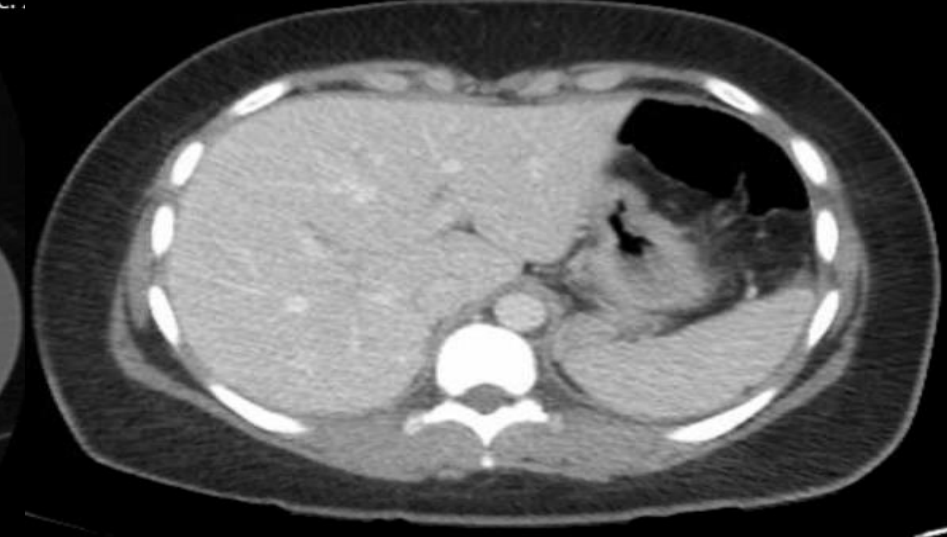


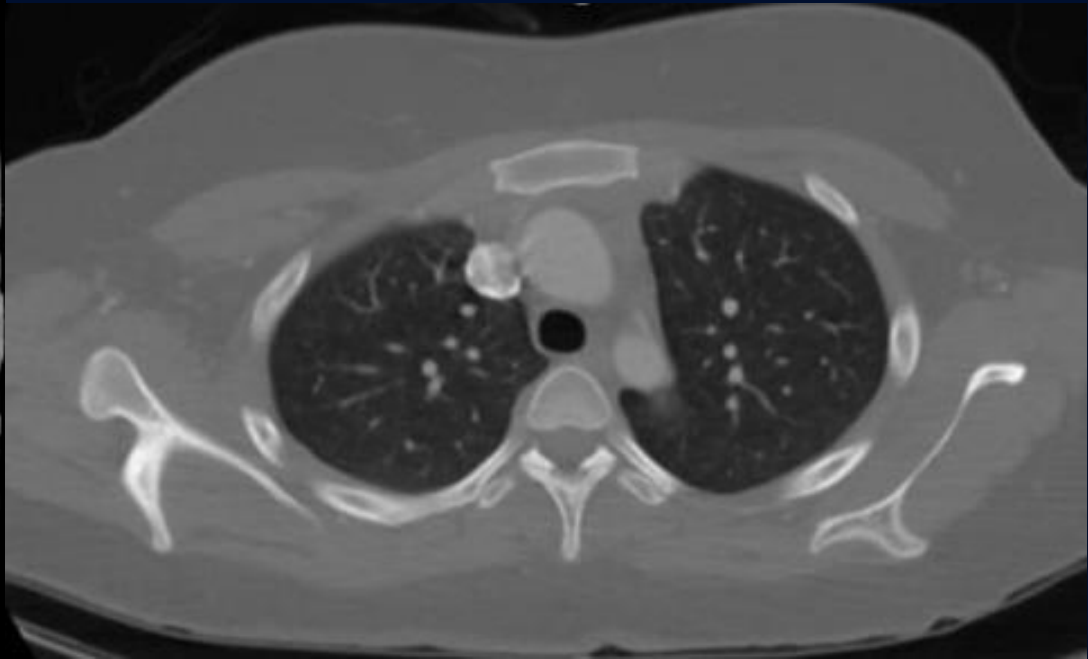
20-year-old female with lifelong
hypertension presenting with
acute cramping abdominal pain
radiating to the back

Sumanya Kumar MS3

CTA



CTA



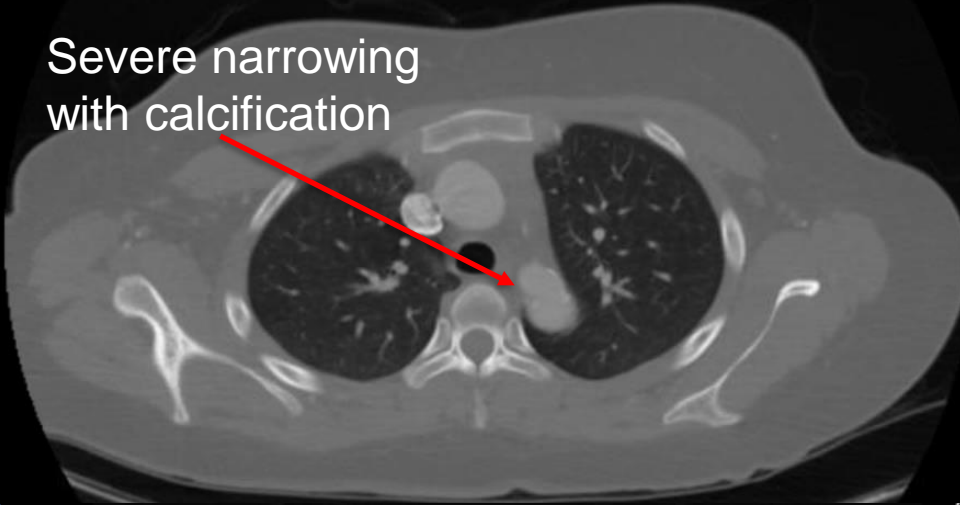
A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. The leaf has a prominent central vein and several smaller veins branching off it. The leaf's edge is serrated.

?

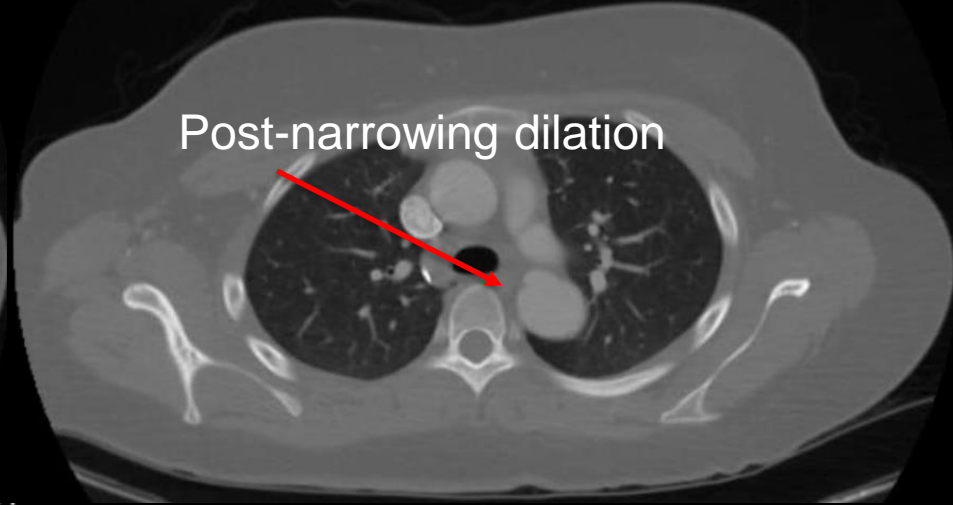
Thoracic aorta aneurysm with coarctation and PDA

CTA

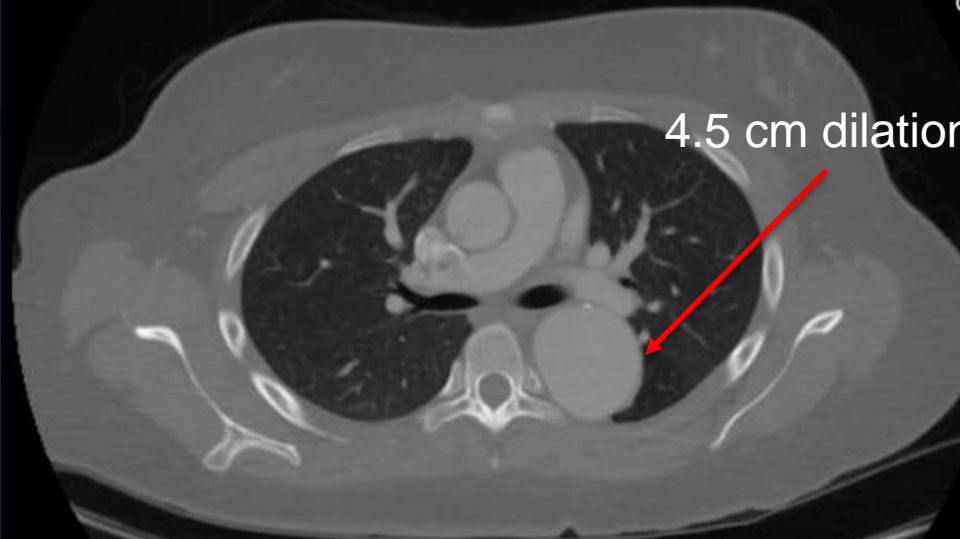
Severe narrowing
with calcification



Post-narrowing dilation



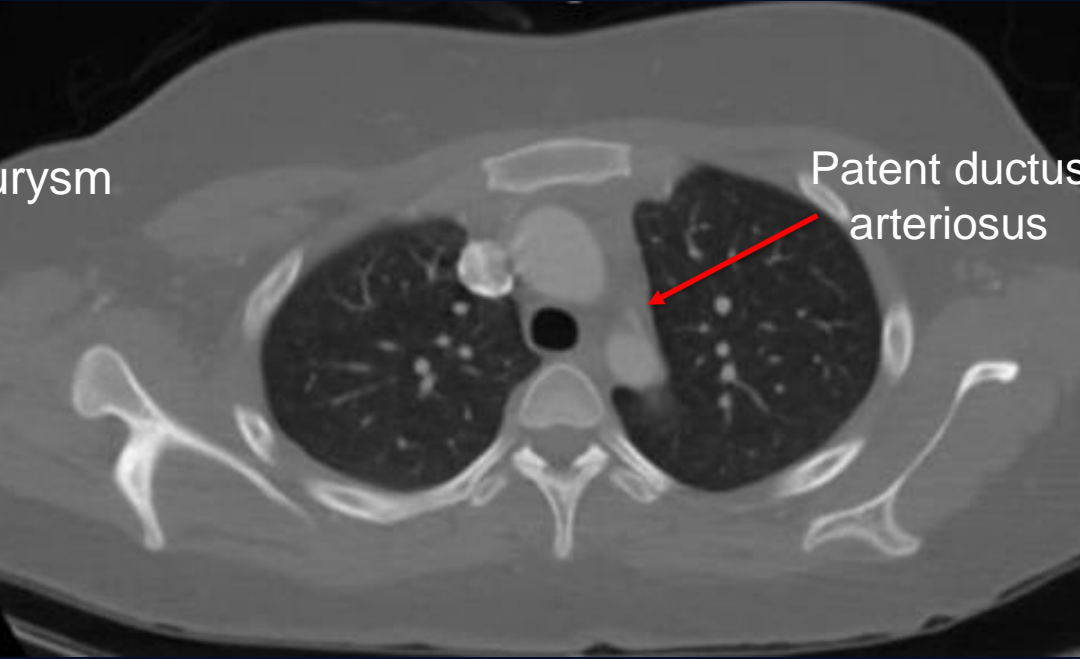
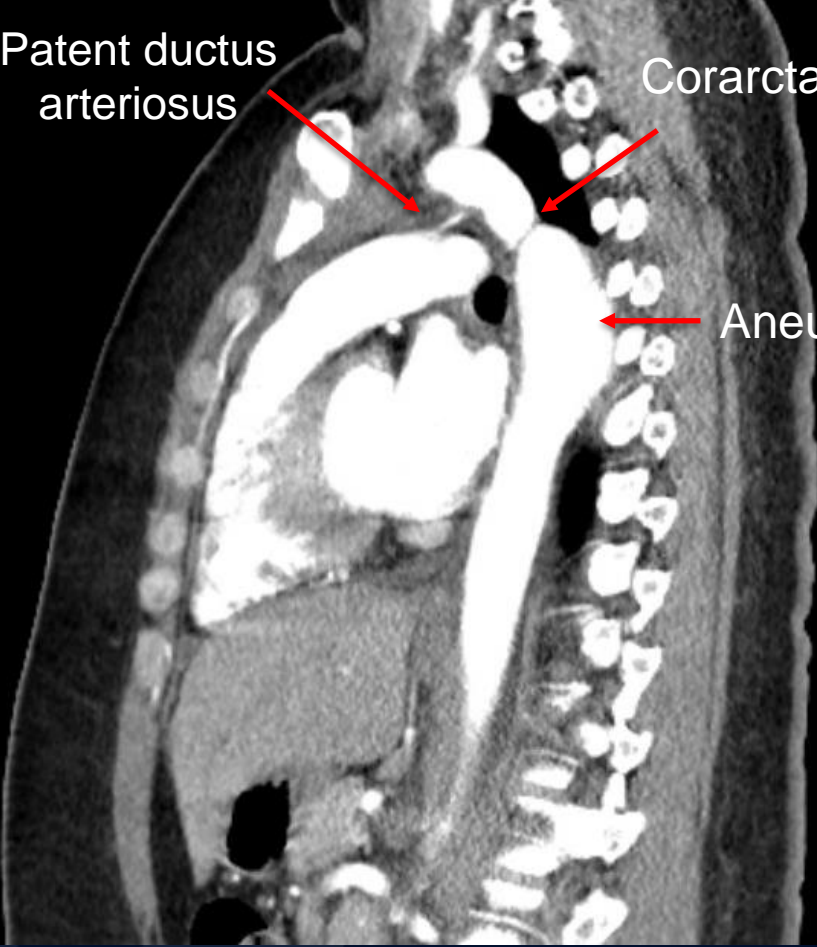
4.5 cm dilation



No intra-abdominal or pelvic pathology



CTA



Discussion

- **Patent ductus arteriosus, coarctation of the aorta, and thoracic aorta aneurysm** are all rare entities; even rarer to diagnose them in a 20-year-old with no prior history
- In this case, initial finding of descending aorta aneurysm were found incidentally and was unrelated to her chief complaint in the ED
- Pediatric patients presenting with persistent hypertension should be evaluated for underlying etiologies including PDA and coarctation of the aorta
- Early identification of these pathologies is essential for early correction and prevention of further issues, such as the aneurysm in this patient
- Surgical correction involving cardiopulmonary bypass will be required to correct these pathologies and prevent future complications such as cardiovascular disease and aortic dissection

References

- Faiza Z, Sharman T. Thoracic Aorta Aneurysm. [Updated 2022 May 8]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK554567/>
- Fruitman DS. Hypoplastic left heart syndrome: Prognosis and management options. Paediatr Child Health. 2000 May;5(4):219-25. doi: 10.1093/pch/5.4.219. PMID: 20177524; PMCID: PMC2817797.
- Gillam-Krakauer M, Mahajan K. Patent Ductus Arteriosus. [Updated 2022 Aug 8]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK430758/>
- Law MA, Mahajan K. Aortopulmonary Septal Defect. [Updated 2023 Jan 21]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK442003/>
- Law MA, Tivakaran VS. Coarctation of the Aorta. [Updated 2023 Feb 12]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK430913/>