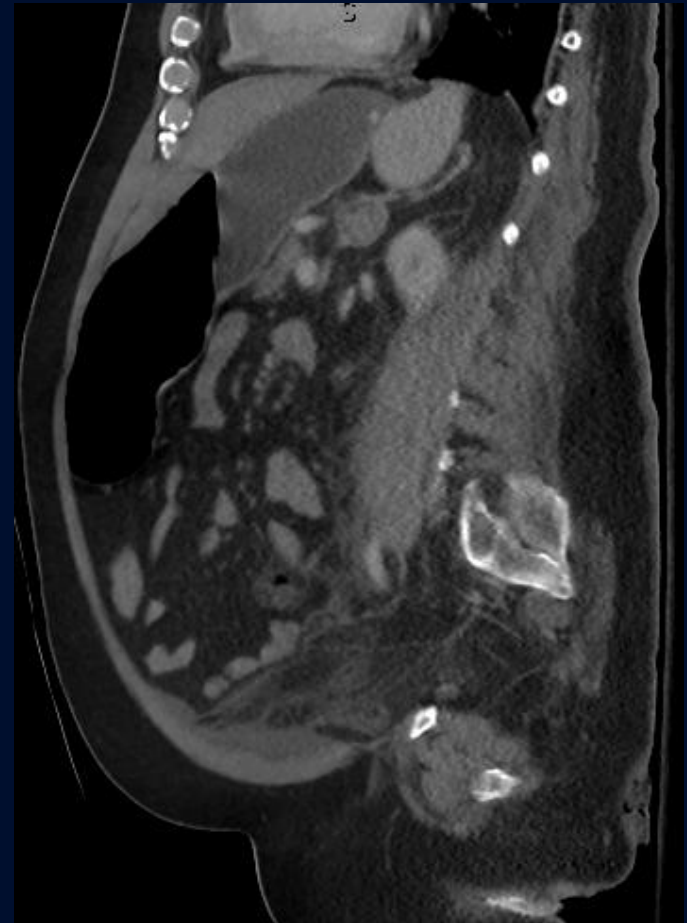
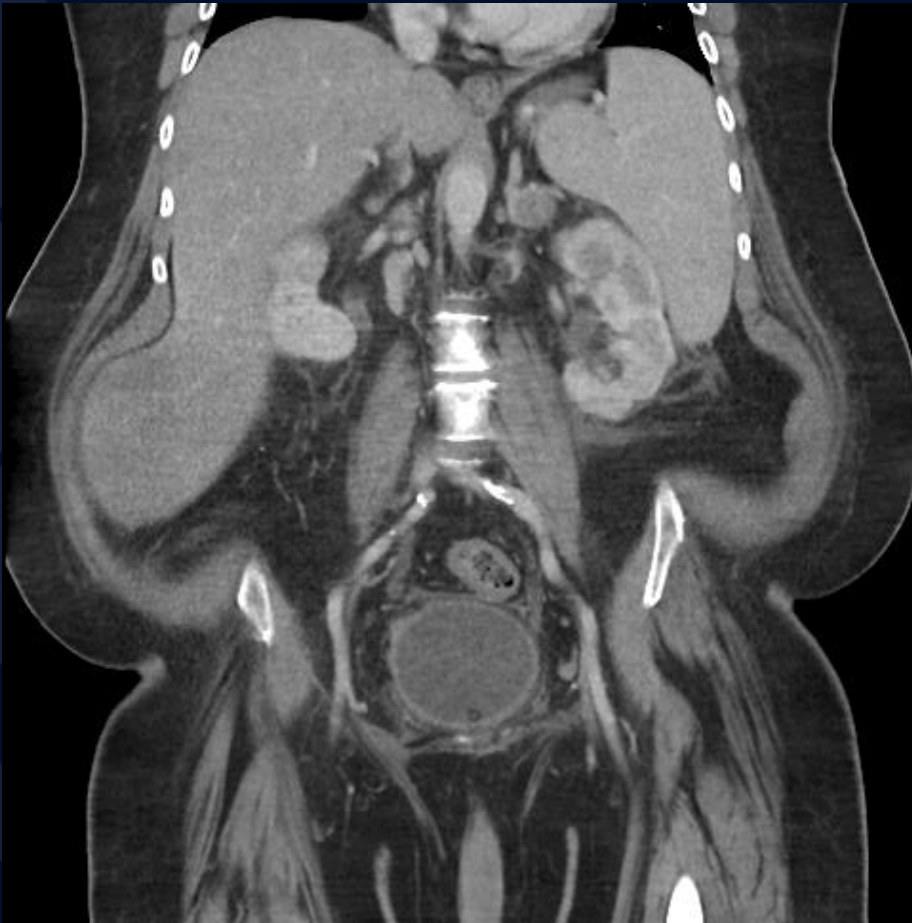


64-year-old male presenting with new onset resistant hypertension

Brooke Onwenu, MS3

CT IV Contrast



CT IV Contrast

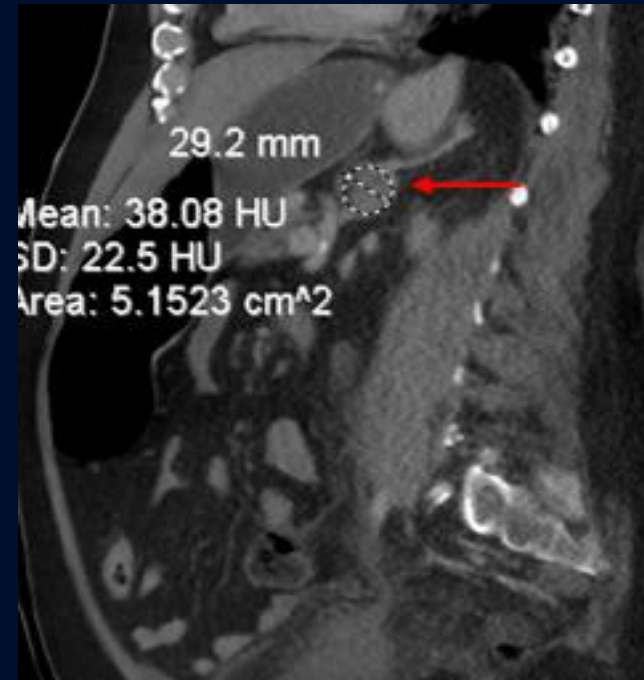
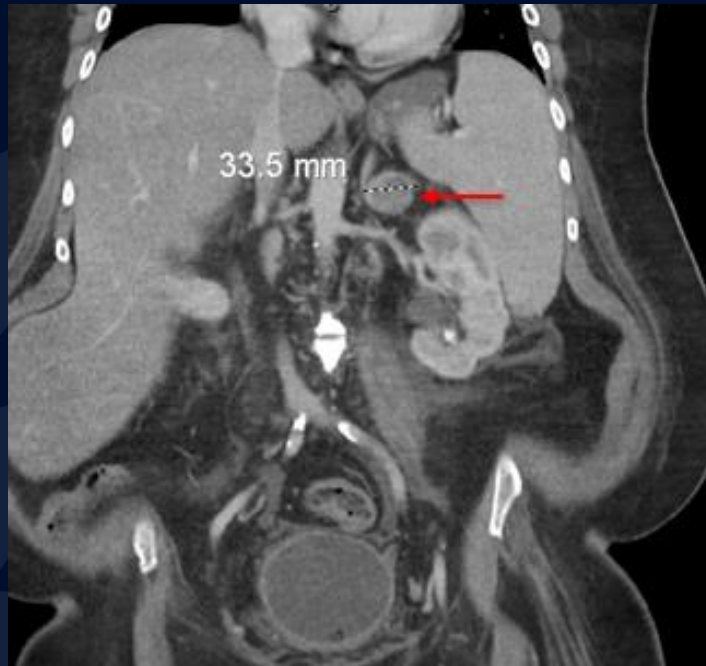


A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. It features detailed vein patterns and a lobed edge.

?

Aldosterone-producing Adenoma (Conn Syndrome)

CT IV Contrast



Aldosterone-producing Adenoma (Conn Syndrome)

- Epidemiology
 - Less than 1 percent causes of an adrenal incidentaloma.
 - Most adrenal incidentalomas are nonfunctional; 10 to 15 percent secrete excess amounts of hormones.
- **Pathophysiology:** Aldosterone works to increase the number of open sodium channels in the apical membrane of principal cells in the cortical collecting tubule; resulting in increased sodium reabsorption subsequent effect such as hypertension.
- Clinical presentation
 - Hypertension (major clinical finding) in the setting of low renin values
 - Hypokalemia (inconsistent finding)
 - Increased cardiovascular risk associated with increased left ventricular mass and decreased left ventricular function
 - Metabolic syndrome
- **Differential diagnosis**
 - Subclinical Cushing syndrome
 - Pheochromocytoma
 - Adrenocortical carcinoma
 - Metastatic disease

Imaging Findings

CT

- Benign adenomas are typically round and homogeneous with smooth contour and sharp margins.
- Most often less than 4 cm, usually unilateral.
- Non-contrast images: often ≤ 10 HU, but this is not the case in 30% of adenomas.

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