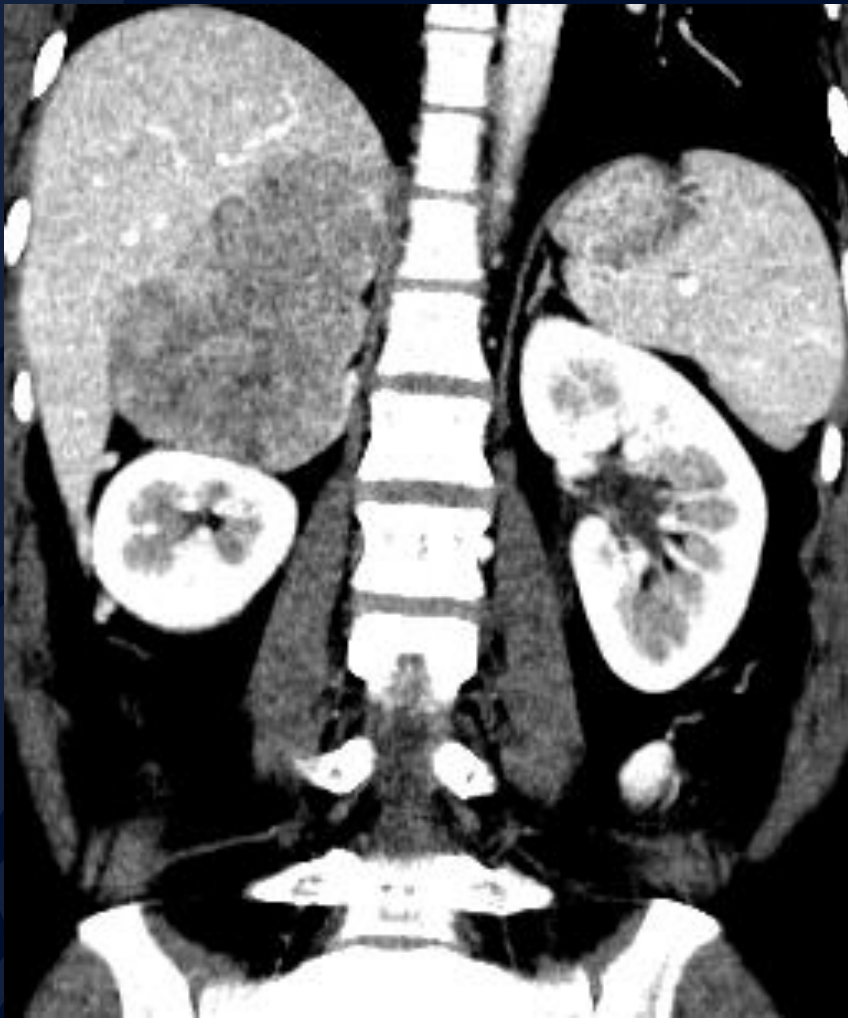


29 year old woman with 2 months
of abdominal pain and fullness,
during which time she also
reported a 10 pound weight loss

Leah Aakjar, MS3
Kathryn Becker, MD







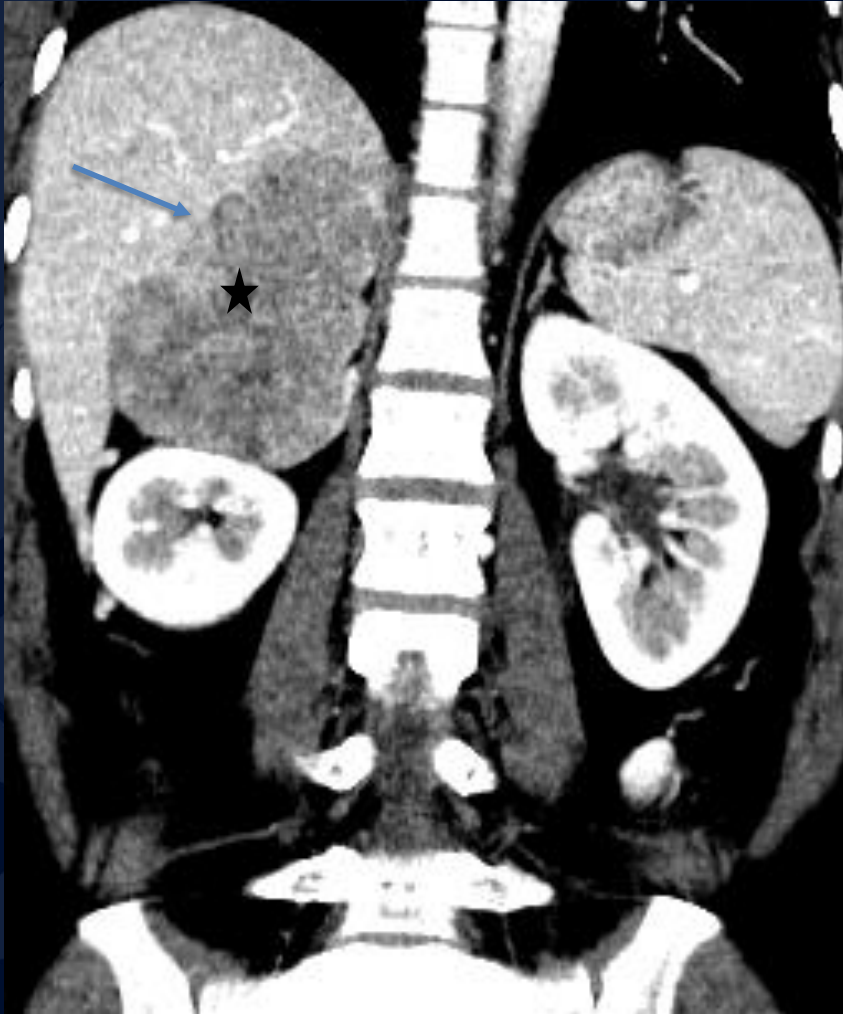
A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. It features detailed vein patterns and a lobed edge.

?

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.

Right adrenocortical carcinoma with invasion into the liver

CT abdomen and pelvis with IV contrast



Coronal CECT of the abdomen shows a heterogenous right adrenal mass (star), which invades the liver (arrow) and exerts mass effect on the right kidney, but is clearly separated

Adrenocortical Carcinoma

- Rare and usually fatal tumor
- Bimodal distribution in the first and fourth decade of life
- Can be functional or non-functional
 - May produce cortisol, androgens, estrogens, aldosterone or mixed pattern
- Only 30% are confined to the adrenal gland on diagnosis due to late diagnosis
 - Most commonly spreads to local periadrenal tissue, lymph nodes, lungs, liver and bone
- Tumor size is the best indicator of prognosis
 - Other prognostic factors include presence of mets and completeness of surgical resection
- Surgery is the mainstay of treatment
- Mitotane chemotherapy also plays a major role in treatment

Imaging Findings

- CT
 - Almost always >10 HU
 - Large, irregularly shaped
 - Central calcifications in 30% of cases
 - Variable enhancement due to areas of necrosis and hemorrhage, slow washout
 - Hepatic metastases are hypervascular, best seen on arterial phase
- MRI
 - Heterogeneous signal intensity due to areas of hemorrhage and necrosis
 - Avid enhancement with slow washout
 - Better than CT in identifying extent of IVC invasion
- Ultrasound
 - Homogeneous lesion if small
 - Heterogeneous lesion if large due to areas of necrosis, hemorrhage

References

1. Adrenocortical Carcinoma: The Range of Appearances on CT and MRI. AJR. Bharwani, et al. June 2011. Volume 196, Number 6.
<https://www.ajronline.org/doi/10.2214/AJR.10.5540>.
2. Primary Hyperaldosteronism as Initial Presentation of Adrenal Cortical Carcinoma with Liver Metastasis: A Case Report. Aghamohammadzadeh, et al. Int J Hematol Oncol Stem Cell Res. 2013; 7(2): 38-42.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3913141/>.
3. Akajar L., Gillis E., Becker K., Adrenocortical carcinoma. Radiology Online 2019. University of Connecticut.