US-GUIDED BIOPSY OF ABDOMINAL WALL LESIONS

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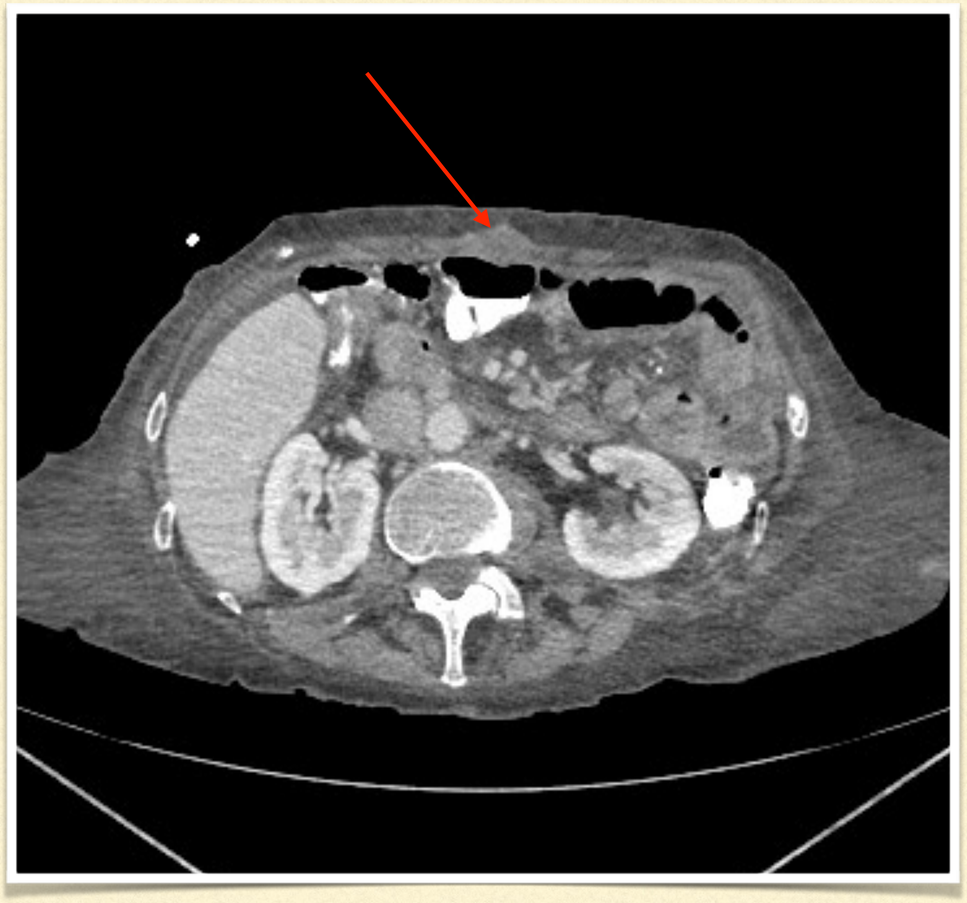
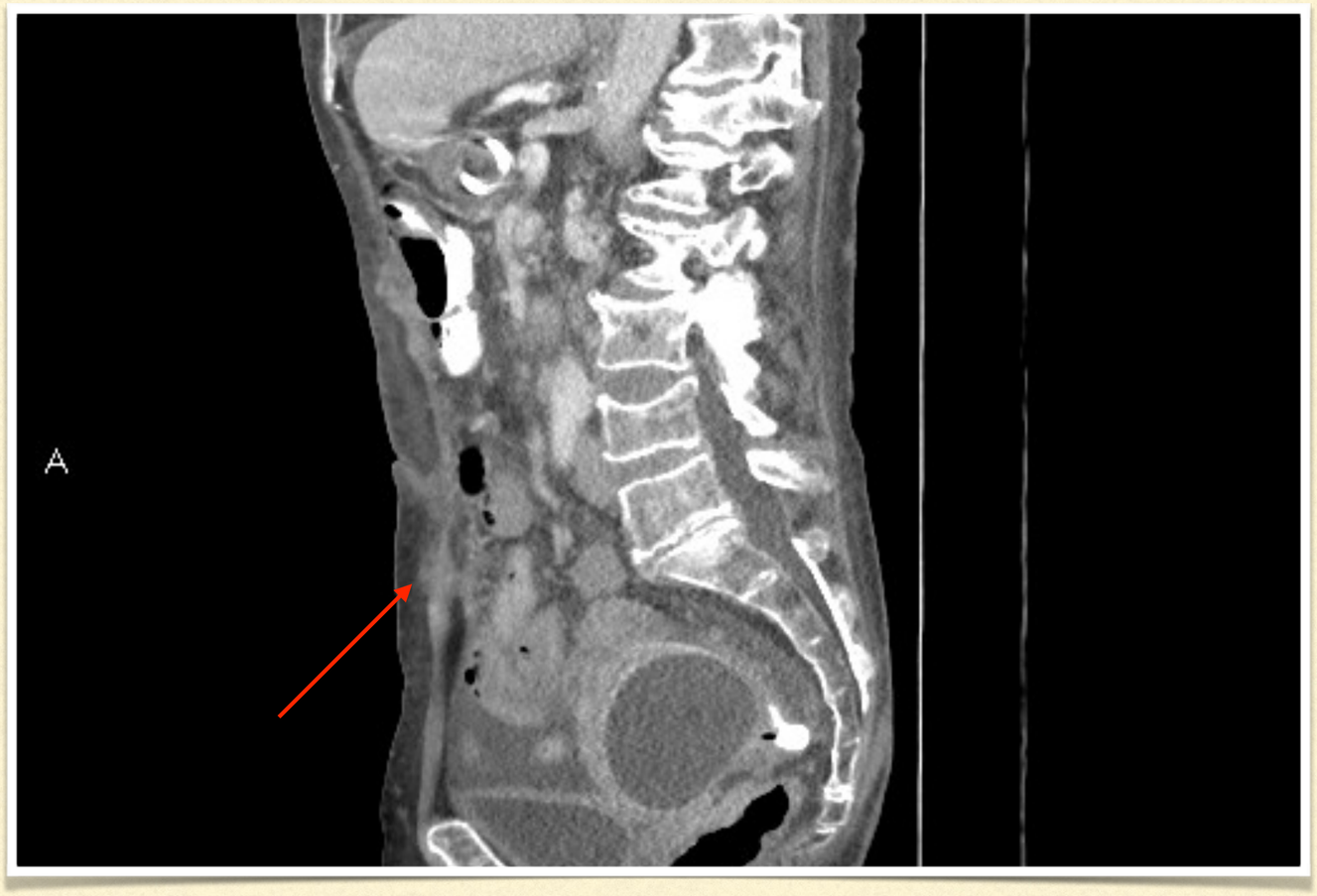
MS4

CASE

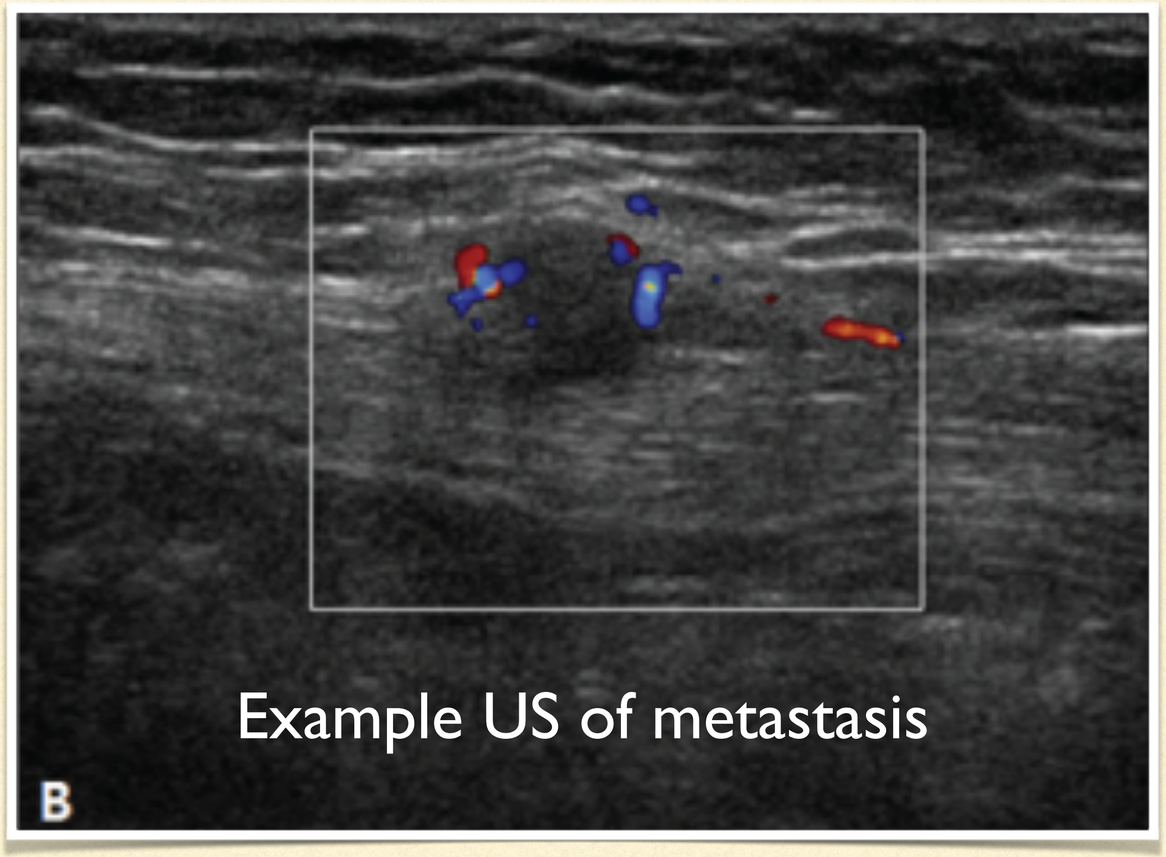
- 66 YOF with hx of pancreatic adenocarcinoma Stage IIb T3N1cM0
- Underwent surgical resection in 2015 with a Whipple
- She had adjuvant chemoradiation during the time of resection, but was found to have local recurrence in May 2017 and started on gemcitabine
- Recently, she reports 8 months of progressive N/V and fevers and chills for the past 2 weeks and jaundice
- MRI demonstrated obstruction of her biliopancreatic limb at the level of the transverse mesocolon, with concern that the obstruction developed as a result of recurrence at the root of the mesentery
- Labs demonstrated bilirubin of 5.5 and she received a PTBD from IR. Abdominal CT was done which showed 2.5cm x 1.5cm focal nodule along previous midline incision. Body procedures was consulted to biopsy the mass and determine if it represented malignancy

PRE-PROCEDURE CT ABDOMEN





DIFFERENTIAL DIAGNOSIS

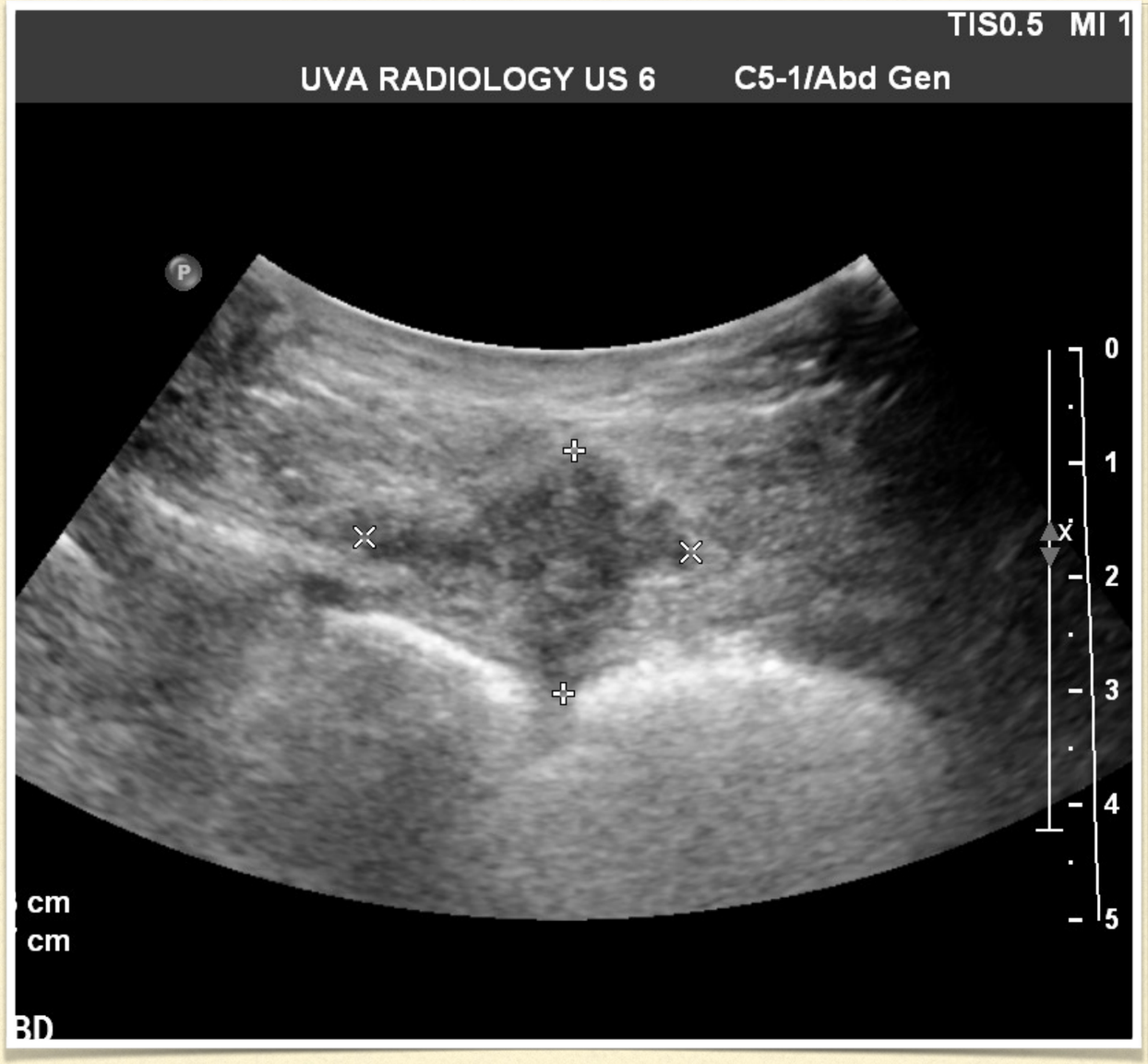


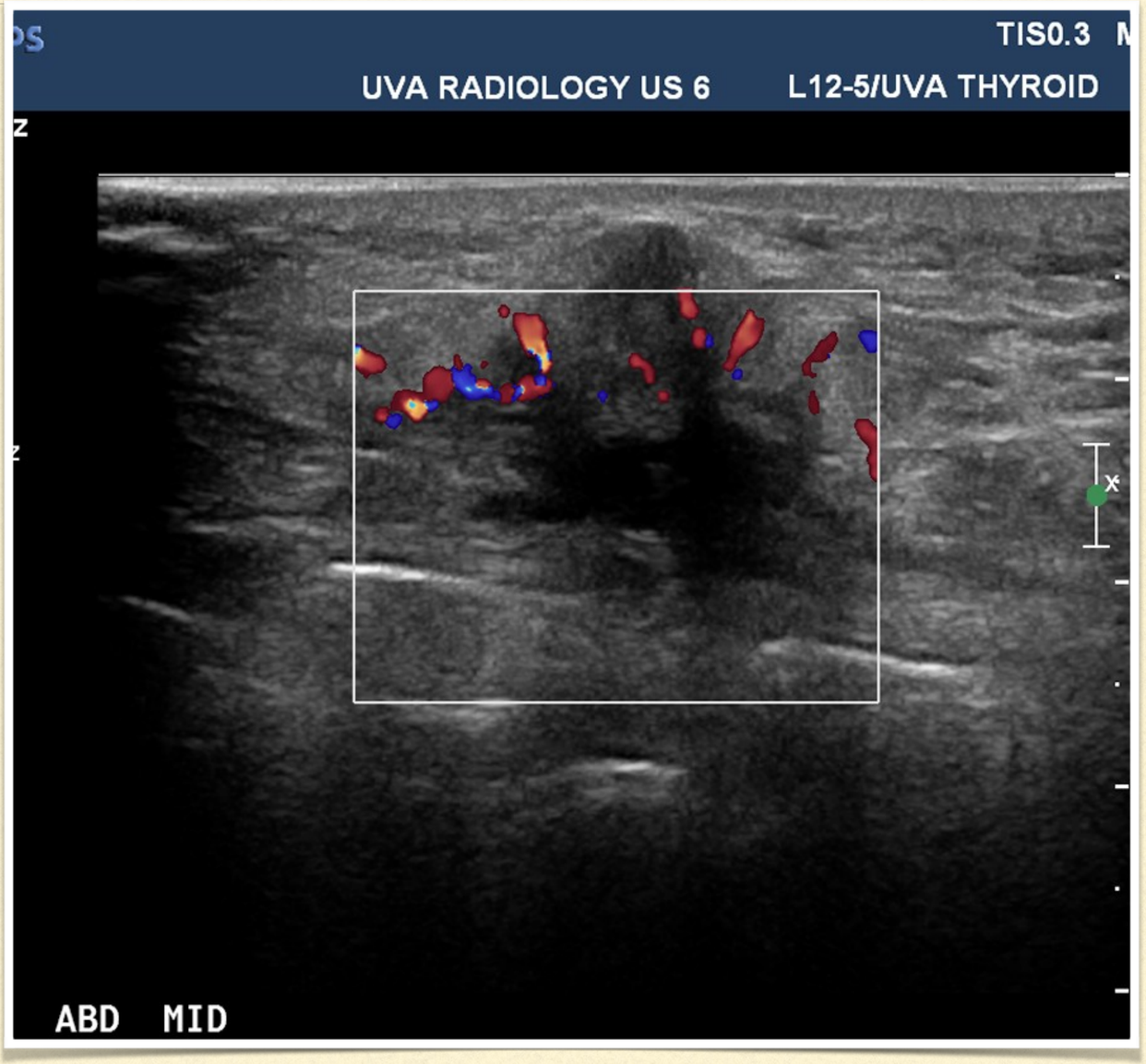
Example US of metastasis

- Recurrence of pancreatic adenocarcinoma with metastatic focus
- Endometriosis
- Lipoma
- Desmoid tumor
- Lymphoma
- Hematoma
- Epidermoid cyst

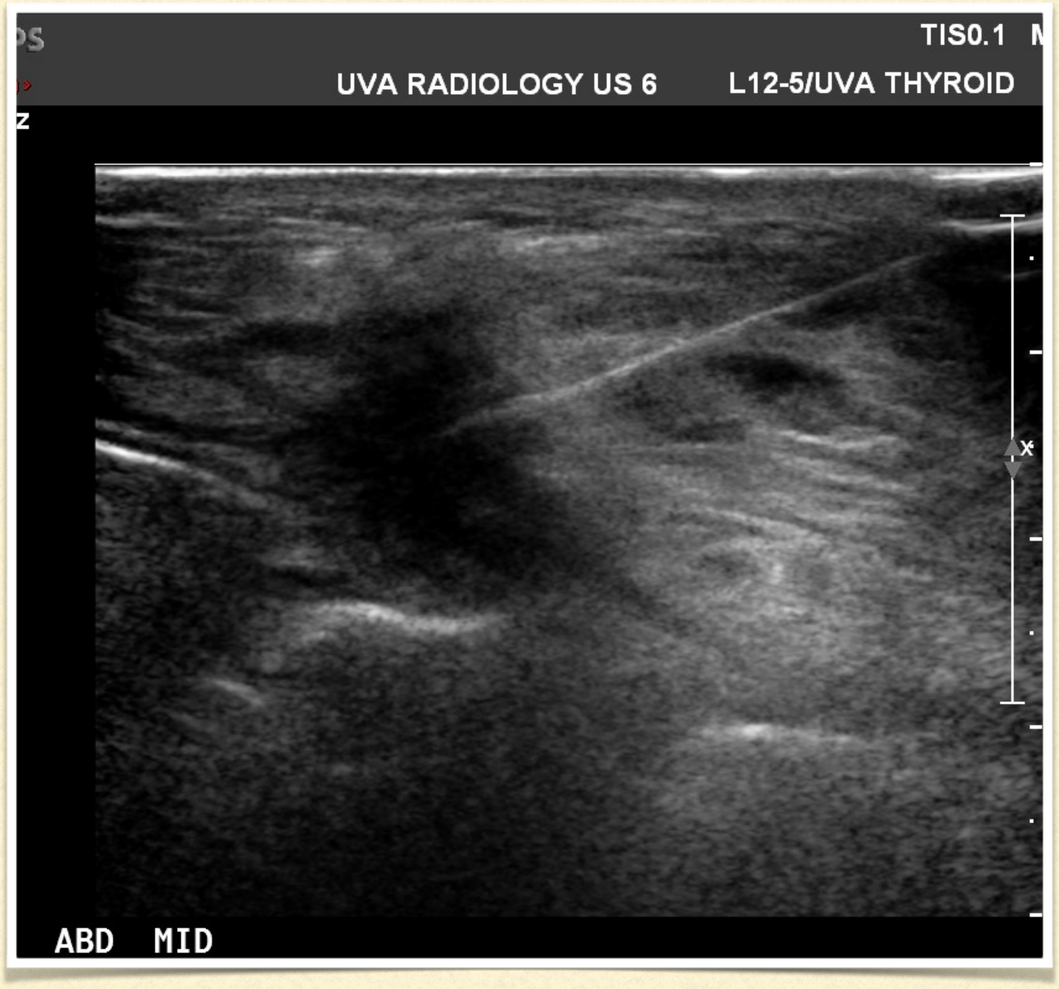
PROCEDURE PLANNING

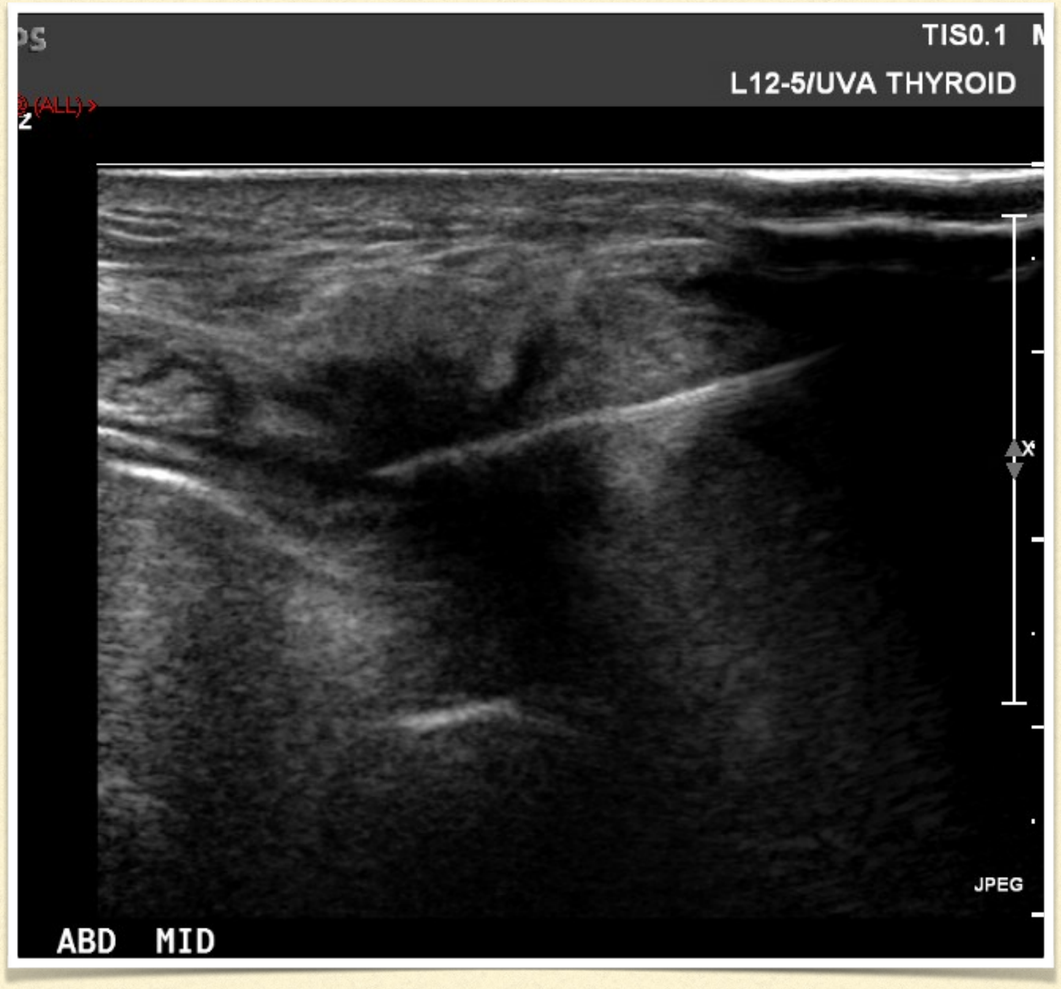
- Ultrasound is considered the first-line modality for image-guided procedures on abdominal wall masses
  - Advantages: live imaging, no ionizing radiation, portable
- Lesions as small as one centimeter can be accurately biopsied
- US characteristics of mass can give insight into diagnosis if only available imaging of lesion is cross-sectional
- At the top of ddx is metastatic pancreatic adenocarcinoma, so core bx will give us tissue architecture to help make our diagnosis





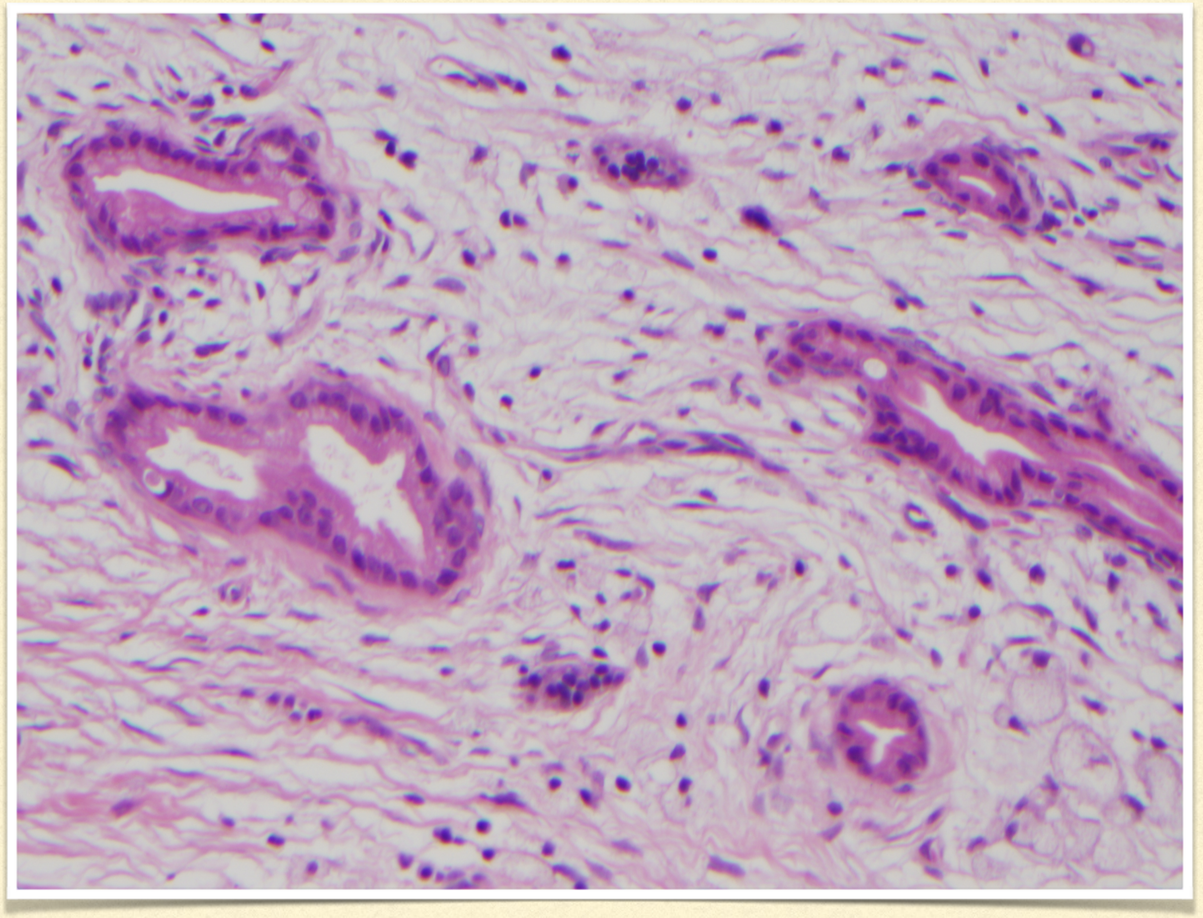
Poorly defined, variably hypoechoic mass with aberrant vasculature, no posterior shadowing or calcification

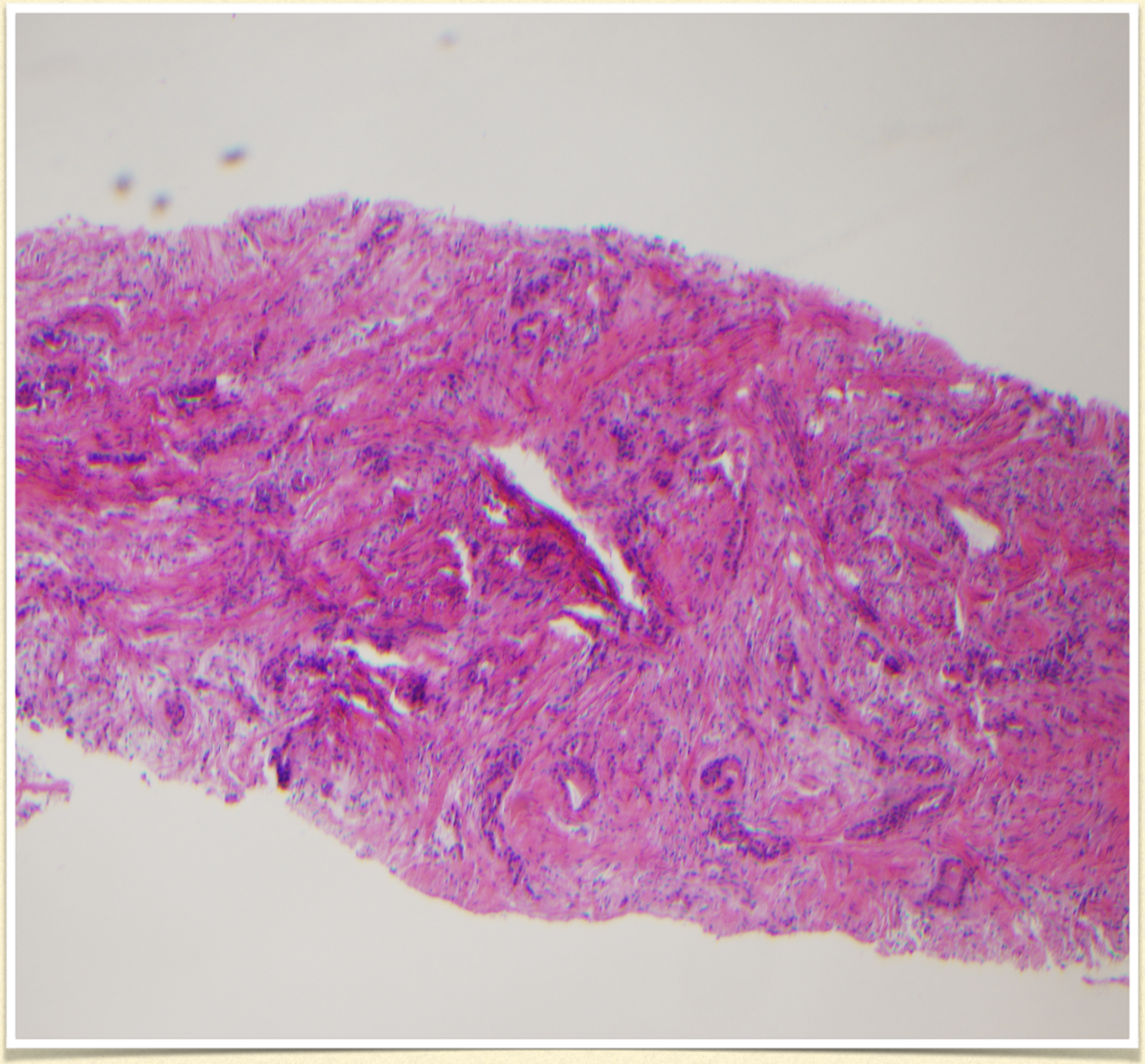

TIS0.1
UVA RADIOLOGY US 6
L12-5/UVA THYROID
ABD MID

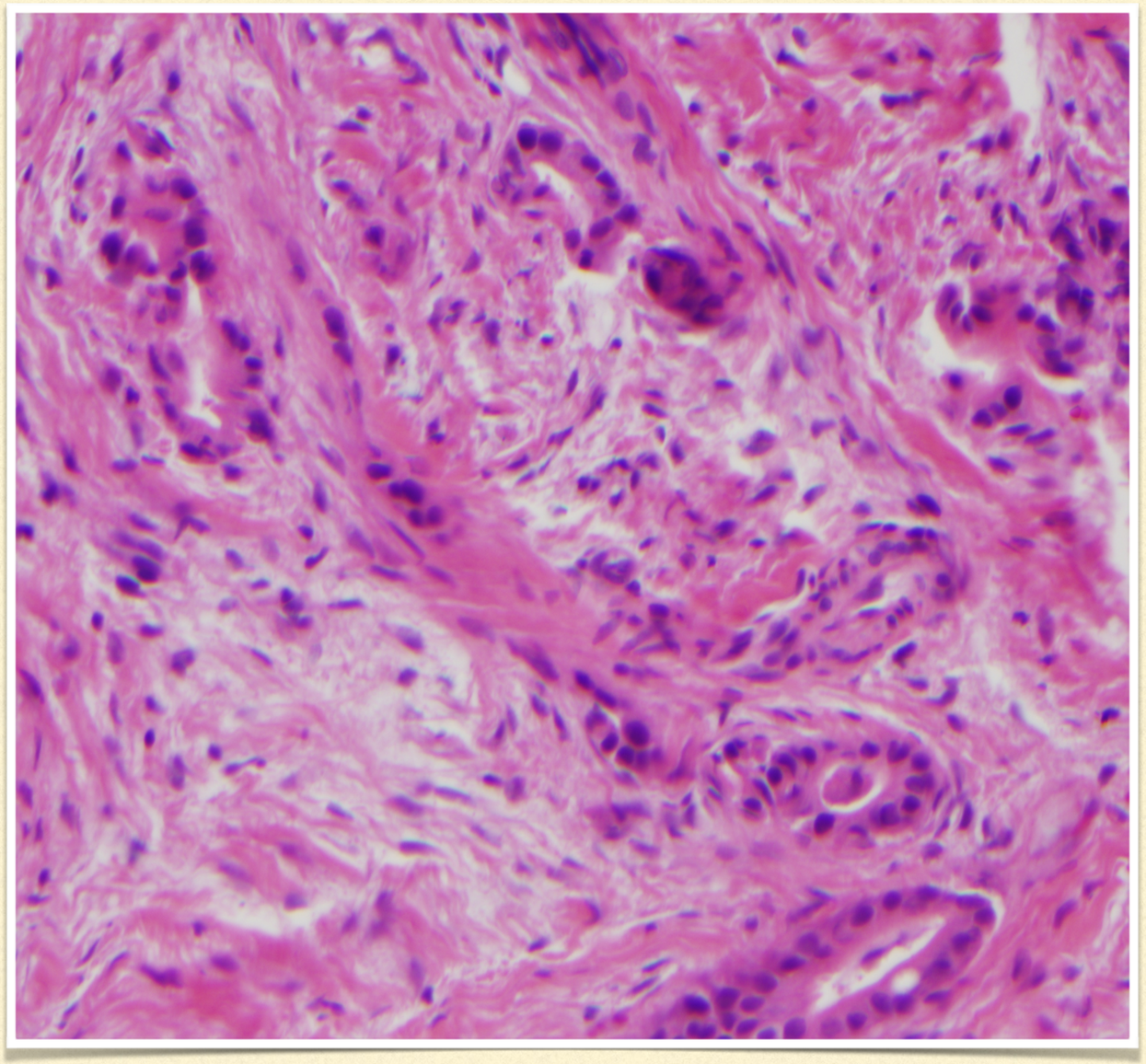

TIS0.1
L12-5/UVA THYROID
JPEG
ABD MID

PATH RESULTS

- One of the pathologist's greatest assets in a case with previous hx of cancer is previous path results (shown on right for our patient)
- Able to compare tissue architecture (I.e. met will likely be well-differentiated if primary was also - the caveat being time between diagnosis of primary and biopsy of met)







PATH RESULTS

- Two FNA passes with 25G and 22G needles contained adequate cellular material but were insufficient for definitive characterization, so ultimately 16G core biopsy was performed
- Result of core bx is well-differentiated pancreatic adenocarcinoma, with glandular tissue clearly identified

FINAL CONSIDERATIONS

- Worries about needle tract seeding
  - Using doppler, we avoid vasculature that could carry dislodged malignant cells to distant sites
  - More of a concern for visceral malignancies where needle tract during biopsy is long (our lesion was superficial)
  - Highest risk is during breast cx biopsy
- In our case, the original surgical resection resulted in tract seeding, so perhaps this cancer is molecularly higher risk for tract seeding

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- Khati, N.J., Gorodenker, J., Hill, M.C. (2011). Ultrasound-Guided Biopsies of the Abdomen. Ultrasound Quarterly, 27(4): 255-268.

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