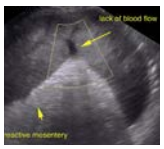
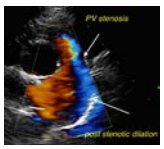
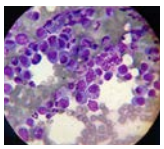
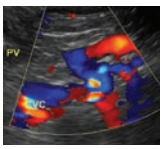
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Charlotte Wood

SPECIES
Feline

BREED
DSH

SEX
Spayed Female

AGE
16 Years

WEIGHT
6.5 Pounds

INTERPRETED BY
Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY
Dr. Louise Mandeville

HOSPITAL NAME
BetterVet

REFERRING VET
Dr. Louise Mandeville

INVOICE
42711

DATE
11/10/22

PRESENTING CLINICAL SIGNS

Weight loss (1lb over 6 months), controlled hyperthyroidism.
Abnormal PE/Chem/CBC/UA Results: SDMA 15mcg/dl, Calcium 11.9mg/dl (8.2-11.2).

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The left kidney measures 3.5 cm. The right kidney measures 3.2 cm.

Adrenal Glands

The area of the right adrenal gland is examined without evident pathology.

The left adrenal gland is uniformly plump and egg-shaped (0.35 cm), hypoechoic in echogenicity with bilateral dystrophic mineralization noted. This is most likely a benign age-related change. This change can be caused by chronic stress/disease, so investigation for/management of other disease (chronic kidney disease, hyperthyroidism, etc.) is recommended.

Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). An approximately 1.0 cm round, hypoechoic nodule is noted near the gallbladder. Splenic vasculature appears normal.

Liver

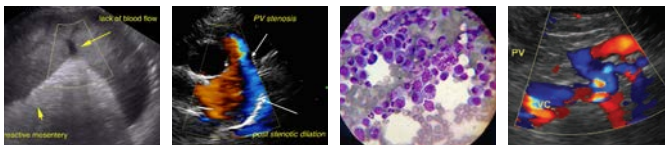
The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.



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The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

Pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and has a mildly irregular undulating contour. Parenchyma is coarse with mixed echogenic remodeling noted. Pancreatic duct dilation is noted. Some hyperreactive mesenteric fat is noted around the pancreas, suggestive of a possible acute on chronic smoldering flare up.

Free Abdomen

A scant amount of anechoic free fluid is noted in the cranial abdomen around the liver.

There is no apparent lymphadenopathy noted in these images.

PRIMARY FINDINGS

- **Liver nodule –** Differentials for a discrete liver nodule include primarily benign changes such as nodular hyperplasia, fibrosis of an old hematoma, granuloma, etc.; however, while considered less likely, primary hepatic neoplasia, infiltrative round cell neoplasia and metastatic disease can mimic benign lesions and cannot be definitively ruled out.

- Chronic active pancreatitis with a suspected acute on chronic flare up

SECONDARY FINDINGS

- Age related kidney and adrenal changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Further recommendations regarding this patient's weight loss are dependent on appetite. If this patient's appetite is decreased, that could be caused by the suspected acute on chronic pancreatitis and addressing any nausea, decreased appetite, etc. may help improve weight. However, if this patient's appetite or caloric intake is sufficient, then other reasons for weight loss should be investigated.

Given this patient's mildly increased SDMA and weight loss, Urinalysis and, if indicated based on urinalysis results, urine culture are recommended, looking primarily for proteinuria as a possible cause of weight loss. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended.

Given the reported hypercalcemia, a malignancy panel to include PTH, PTHrP, and ionized calcium is recommended to help further differentiate the cause of the hypercalcemia.

Gastrointestinal maldigestive and malabsorption disorders can be present despite relatively normal ultrasound findings an can resulting weight loss. Therefore, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

A fine needle aspirate of the liver nodule could be considered if patient's coagulation status is appropriate. There is no other evidence of infiltrative round cell neoplasia, and the appearance of the nodule trends towards the benign, but a fine needle aspirate can help further rule that out.

Finally, if a cause for the ongoing weight loss is not determined, potentially this patient requires titer control of the hyperthyroidism. A T4 value was not provided, but if it could potentially safely go lower, perhaps an increased Methimazole dose could be attempted with close attention paid to the kidneys for progression of azotemia with titer hyperthyroidism control a risk.

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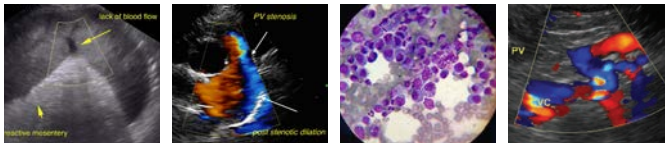

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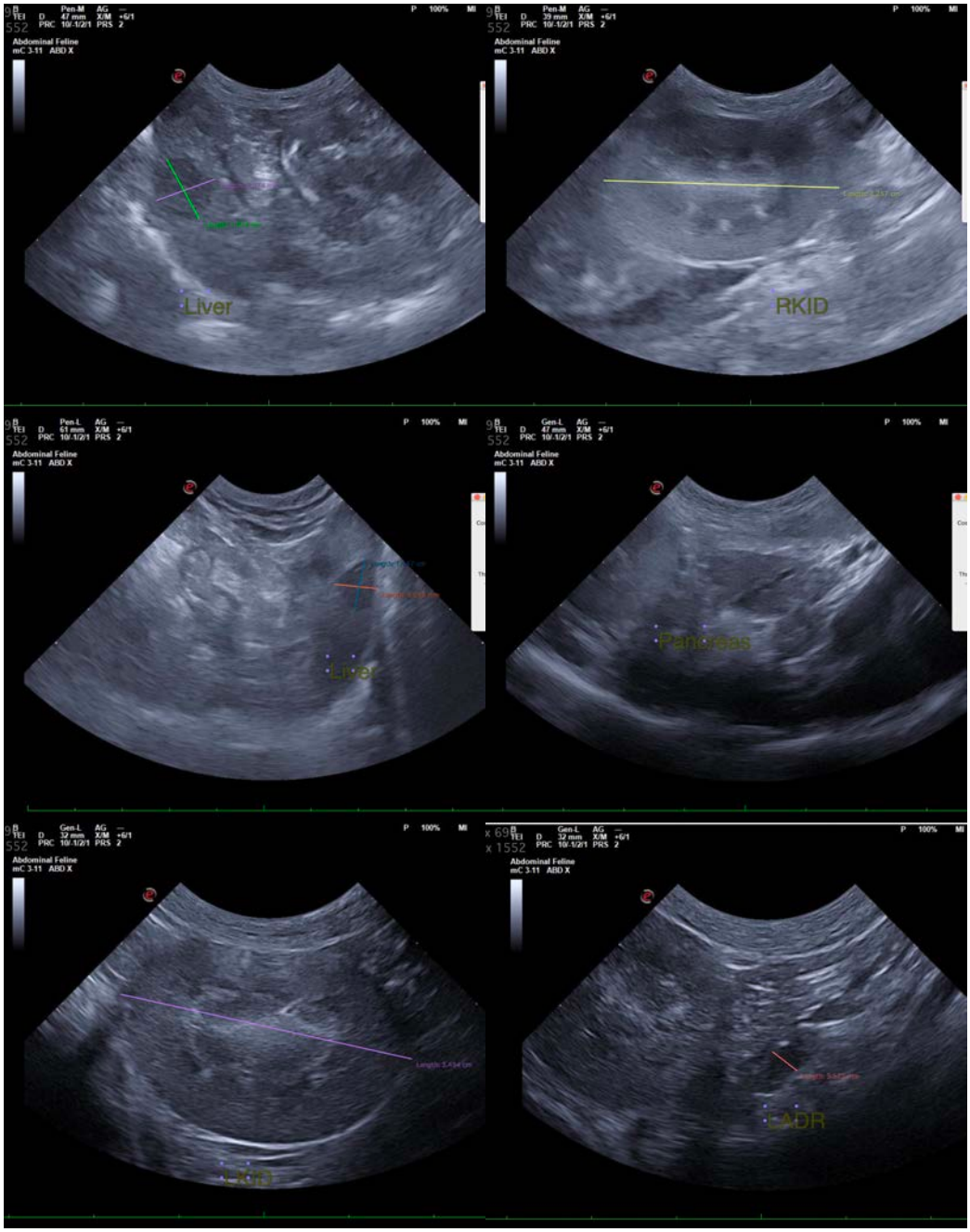

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

Beth Johnson, DVM, DACVIM
Beth.Johnson@sonopath.com