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Clinical Sonography & Telecytology
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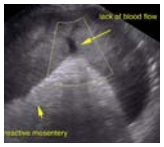
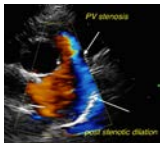
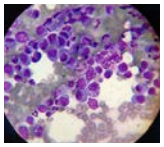
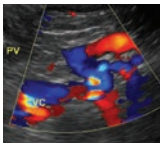





SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Shorty Sue Coulter

SPECIES
Canine

BREED
Corgi X

SEX
Spayed Female

AGE
12 Years 11 Months

WEIGHT
41 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
Dr. Leon Anderson

HOSPITAL NAME
Elizabeth AH

REFERRING VET
Dr. Leon Anderson

INVOICE
42335

DATE
10/25/22

PRESENTING CLINICAL SIGNS

Shorty Sue has been doing just fine. She had elevated liver enzymes and proteinuria on routine labs, and got worse over the last month.

Abnormal PE/Chem/CBC/UA Results: PE: Unremarkable for age. Labs: Fasted Bile Acid today: 12 umol/L (normal) 12/21: UPC 4.23, UA: pH 8.0, SG 1.014, 500mg/dL protein, quiet sediment. ALT 162 U/L, ALP 913 U/L CBC, Thyroid, cPL, BNP, Fecal, HELA all normal.

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.

The right kidney is normal in size (7.57 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

The left kidney is normal in size (7.32 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Adrenal Glands

Adrenal glands are plump/swollen in size. Normal shape maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The right adrenal gland measures 2.7 cm long x 1.1 cm at the cranial pole and 0.71 cm at the caudal pole. The left adrenal gland measures 3.14 cm long x 0.95 cm at the cranial pole and 1.0 cm at the caudal pole. There is suspicion for an emerging capsular bulge on the caudal pole of the left adrenal gland.

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). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

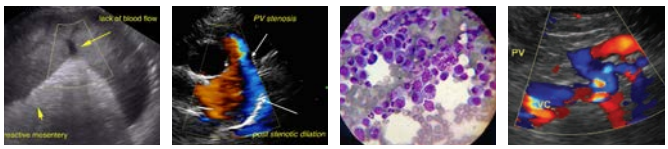
Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

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



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per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

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

Pancreas

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

ULTRASONOGRAPHIC FINDINGS

- **Bilateral adrenomegaly –** consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism vs stress or normal variant. Interpret in combination with clinical signs of hyperadrenocorticism.

- **Heterogenous Liver –** These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The described adrenal gland and liver changes are all suggestive of hyperadrenocorticism. If clinical signs of hyperadrenocorticism, such as polyuria, polydipsia, polyphagia, panting, hair loss, hypertension, etc. are present, testing for hyperadrenocorticism with a LDDS test is warranted. If a LDDS test has been evaluated with a normal result, investigation of possible atypical hyperadrenocorticism with a full ACTH stimulation adrenal panel to the University of Tennessee could be considered. If clinicals signs are not present, monitoring is recommended with testing pursued when/if clinical signs develop. If not recently evaluated, blood pressure is recommended. If not recently evaluated, a urinalysis and, if indicated based on urinalysis results, urine culture are also recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended.

Testing for Leptospirosis could also be considered, given the proteinuria and mildly increased ALT as an additional differential to the changes.

In the meantime, medical management of hypertension (if present) and proteinuria is recommended in the form of an ACE inhibitor +/- Amlodipine, only if hypertension is present, an antithrombotic if patient's coagulation status is appropriate, as well as fatty acid therapy could be considered.

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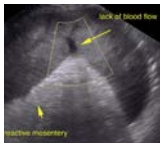
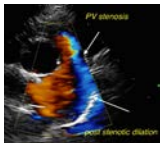
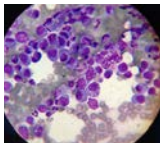
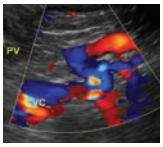

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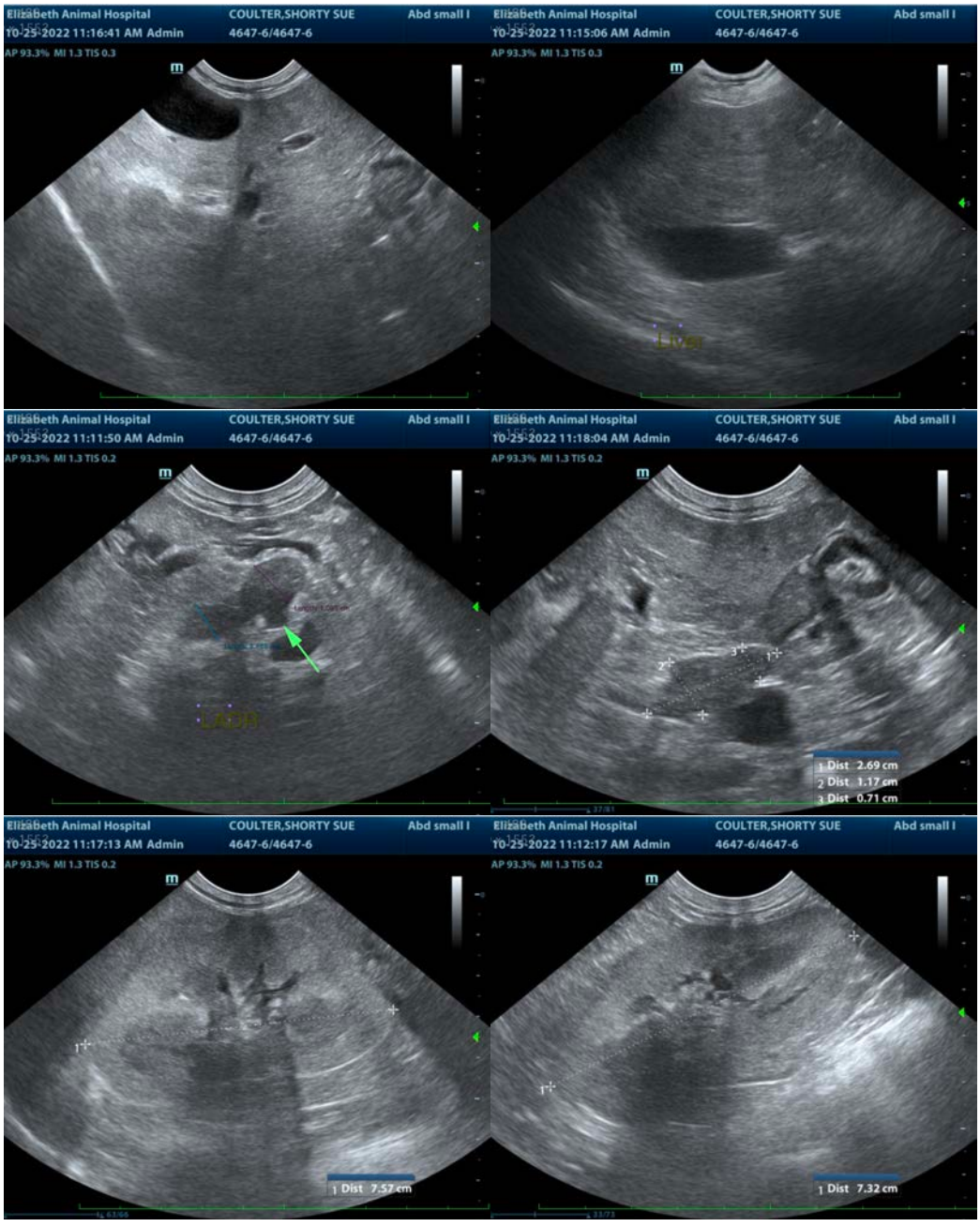

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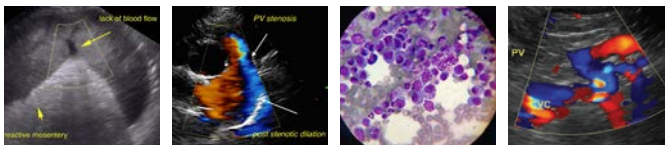

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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