SonoPath
Clinical Sonography & Telecytology
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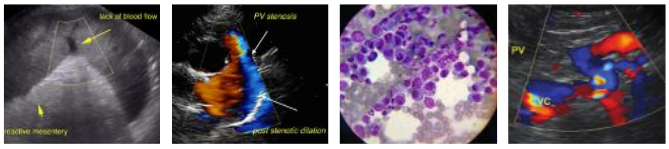


SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Money Chang

SPECIES

Canine

BREED

Maltese

SEX

Neutered Male

AGE

16 Pounds

WEIGHT

N/A

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Companion VH (Wayne)

REFERRING VET

Dr. Ben Spitz

INVOICE

17718

DATE

10/14/22

PRESENTING CLINICAL SIGNS

History: Patient with history of Cushing's, pulmonary hypertension, hypothyroid, and paresis presents for severely increased liver enzymes. Current meds: levothyroxine, trilostane, and Sildenafil. The patient is also under the care of a cardiologist.

Abnormal PE/Chem/CBC/UA Results: AST 82, ALT 666, ALP 4941, GGT 27, T. Bili 0.1, BUN 26, creat. 0.6, Ca+ 11.5, Chol. 400, WBC 19,200, neuts 12,416. U/A: 3+ protein, UPC 9.1, urine culture (neg), USG 1.015. Platelet count: 430,000, HCT 59%.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The prostate is normal in size (0.89 cm) and shape for this neutered male dog. The parenchyma is homogenous, and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (4.58 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal. Numerous small cortical cysts are present.

The right kidney has a normal shape and size (5.23 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal. Numerous small cortical cysts are present.

Adrenal Glands

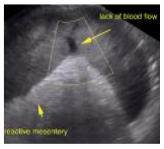
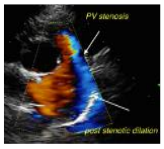
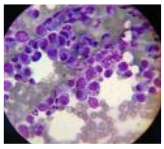
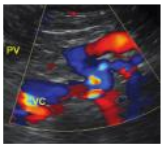
The left adrenal gland is large in size measuring 1.1 cm at the cranial pole and 1.0 cm at the caudal pole and 1.87 cm in length. It is visualized in its normal position cranial to the left renal artery. It is somewhat abnormal in appearance in that it is large with rounded margins and some focal mottling mid adrenal gland, measuring approximately 1.0 cm in diameter. There is no evidence of vascular invasion visualized.

The right adrenal gland is large in size measuring 1.11 cm at the cranial pole and 1.24 cm at the caudal pole and 2.8 cm in length. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized. The spleen measures 0.83 cm in width at the level of the hilus.

Liver

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The liver is subjectively (normal, large, small, normal/large, normal/small) in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5 cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47 cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is prominent and mottled compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

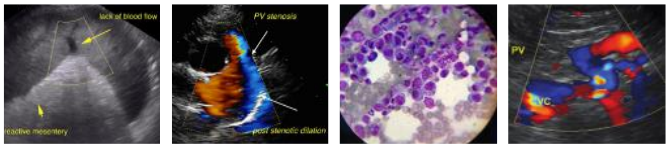
Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

Other

Ring down artifact is visualized at the level of the diaphragm. This can be an indicator of pulmonary parenchymal disease. Recommend thoracic radiographs.

ULTRASONOGRAPHIC FINDINGS

- Bilateral adrenomegaly with a slightly irregular left adrenal. The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended.
- Decreased corticomedullary distinction in both kidneys with small cortical cysts. The bilateral renal findings are consistent with age-related change.
- Heterogeneous liver. The diffuse hepatic changes are non-specific and could be consistent



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with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

- Moderate gallbladder debris. The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

- Ring down artifact visualized at the level of the diaphragm. This can be an indicator of pulmonary parenchymal disease.

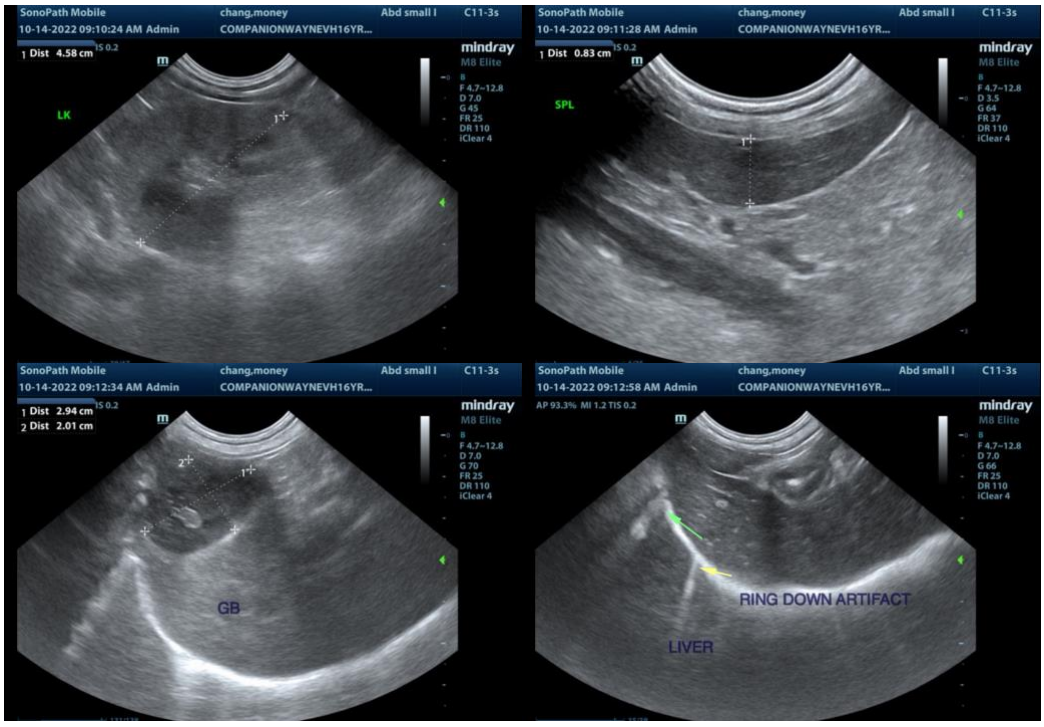
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No focal lesions are visualized associated with the liver. The parenchyma is heterogeneous and there is some moderate gallbladder debris visualized but no surrounding inflammation or wall thickening. The findings are most consistent with a steroid hepatopathy. Consider a liver function test and fine needle aspirate if there is further concern.

Both adrenal glands are large, which is consistent with Cushings disease and trilostane therapy. The left adrenal gland is somewhat irregular with a mottled area mid adrenal. Recommend a blood pressure evaluation and continued monitoring of this area.

Consider instituting medical therapy for the proteinuria, particularly if there is any evidence of concurrent systemic hypertension.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.



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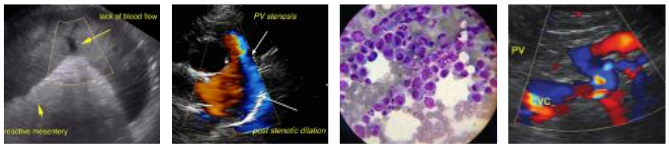

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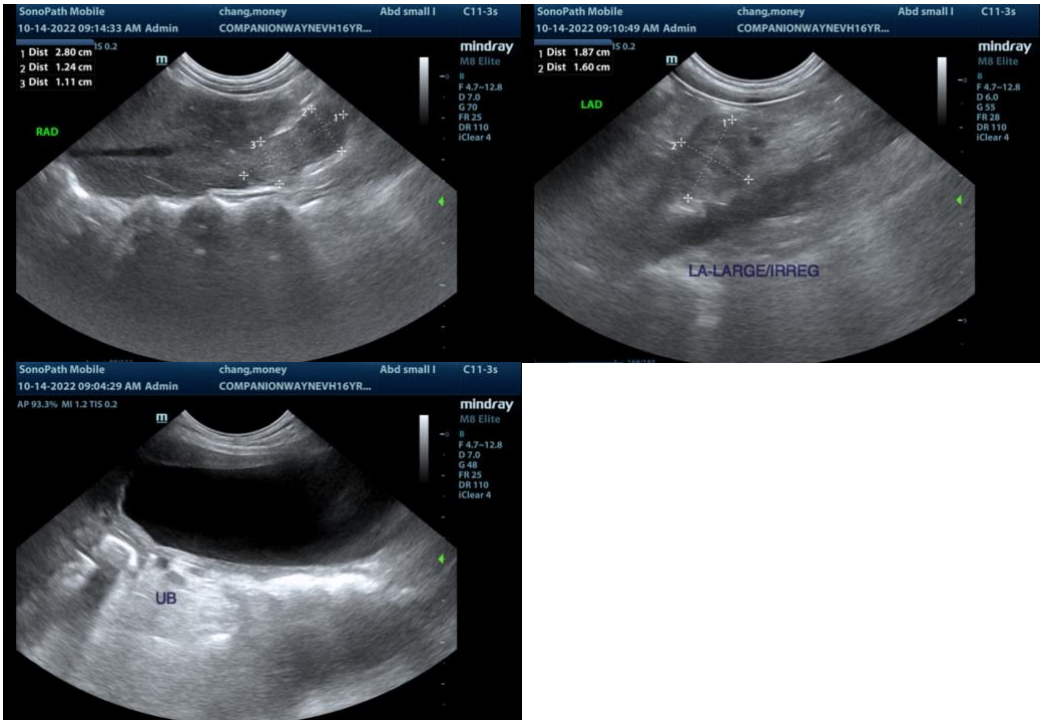

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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