



PATIENT PRESENTING CLINICAL SIGNS

Mia Pappalardo
SPECIES Canine
 Hx of Cushings Dz, has been treated with Vetoryl 8/2019-12/2019 then switched to compounded Trilostane 12/2019 through present. Had bladder inf. 8/2022, now dog is PU/PD, JADR and kidney enzymes elevated-sdma normal. Discontinued Trilostane 4 days ago and dog is clinically improved. Current meds: Deramaxx 12.5mg po sid; Trilostane (discontinued as of 12/16/2022. R/O Endocrine vs primary Renal dz vs Neoplasia vs other

BREED Pomeranian
SEX Spayed Female
AGE 9 Years
 Abnormal PE/Chem/CBC/UA Results: BUN 116 (31 H); CRT 3.9 (1.6 H); PHOS 6.7 (6 H); PSL 253 (140 H); ALKP 2054 (131 H); U/A-USG 1.015, PROT +++, PH 7.5. The liver size appears to be subjectively normal, taking body conformation, stomach position and the pointed extensions of the liver lobes into account. The hepatic parenchyma is uniformly hypoechoic and presents a coarse echotexture. The parenchymal echogenicity is iso- to hypoechoic relating to the fat within the falciform ligament and splenic parenchyma. The hepatic veins appear to be normal in diameter. The portal veins present with thin hyperechoic markings. The intrahepatic biliary tree is not seen. The extrahepatic biliary ducts are not seen. The gallbladder and cystic duct are thin walled and normal in size and shape. The gallbladder content is mainly anechoic. The common bile duct is seen between the proximal duodenum and portal vein and is within normal limits. The fat within the portal hilus is regular in echotexture and hypoechoic.

STIM for K9 post Trilostane (1.5-9.1)-Cortisol S1-2.3 (1.0-5.0); Cortisol S2 3.3 (8.0 L)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

WEIGHT 23.8 Pounds
 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.

INTERPRETED BY Beth Johnson, DVM DACVIM
 Kidneys are normal in size and contour. A relatively uniform hyperechogenicity is observed with markedly decreased corticomedullary distinction. There is no pyelectasia noted and no mineral is observed. No overt masses/nodules are observed. The right kidney measures 5.22 cm. The left kidney measures 4.77 cm.

IMAGING PERFORMED BY Shari Reffi, CVT
Adrenal Glands

HOSPITAL NAME Branchville Country Vet Clinic
 Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The left adrenal gland measures 2.46 cm long x 0.81 cm at the cranial pole and 0.86 cm at the caudal pole. The right adrenal gland measures 2.53 cm long x 0.90 cm at the cranial pole and 1.39 cm at the caudal pole.

Spleen

REFERRING VET Dr. Talbot-Valerio
 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.

INVOICE 43568
Liver

DATE 12/20/22
 Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.



PATIENT

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Gallbladder is moderately distended with anechoic bile as well as mild suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

SPECIES

Canine

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.

BREED

Pomeranian

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.

SEX

Spayed Female

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

AGE

9 Years

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.

WEIGHT

23.8 Pounds

Free Abdomen

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

There is no apparent lymphadenopathy noted in these images.

INTERPRETED BY

Beth Johnson, DVM
DACVIM

PRIMARY FINDINGS

- **Bilateral adrenomegaly** – consistent with this patient’s reported history of hyperadrenocorticism and Trilostane therapy.
- **Nephritis** – This appearance can be consistent with chronic interstitial nephritis or glomerulonephritis. Toxic insult and/or infectious disease (pyelonephritis, Leptospirosis, etc.) cannot be ruled out. This finding should be interpreted in combination with suspicion for renal disease and/or supporting laboratory or urinalysis changes.
- **Hyperechoic hepatomegaly** - This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible, but considered less likely.

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Branchville Country
Vet Clinic

REFERRING VET

Dr. Talbot-Valerio

SECONDARY FINDINGS

- **Mild gallbladder debris** - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

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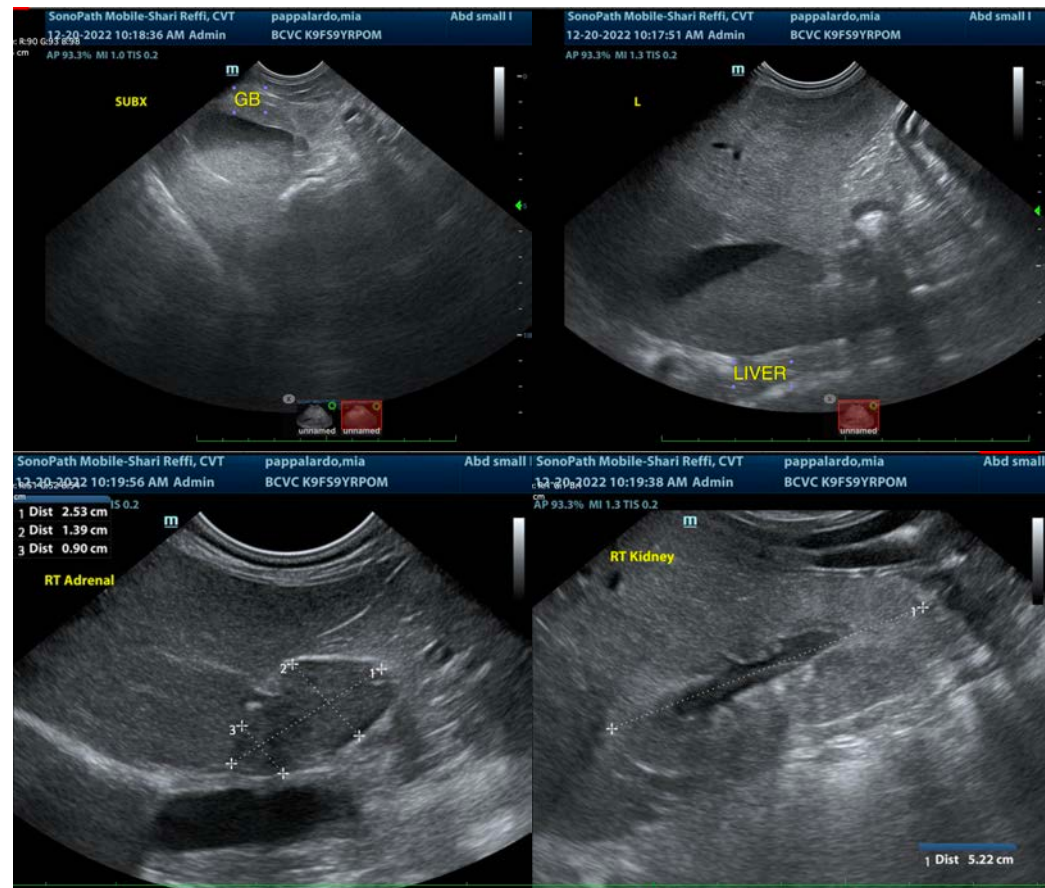
REFERRING VET

Dr. Talbot-Valerio

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the appearance of this patient's kidneys, the new azotemia is likely a combination of true renal azotemia/kidney disease, as well as potentially some mild relative cortisol deficiency. In addition to at least temporary discontinuation of the Trilostane, as was reportedly already done, a urine protein to creatinine ratio is recommended if not recently evaluated, as is a blood pressure. Additionally, testing for Leptospirosis is recommended.

Recheck kidney values are recommended since discontinuing Trilostane to check for degree of azotemia, and if still indicated based on high values or poor clinical response, additional empirical therapies including antiemetics, antacids, fluid therapy, as well as (if tolerated) eventual transition to a renal diet may all be appropriate. Once the patient has returned to normal, and clinical signs of hyperadrenocorticism have returned, Trilostane could be restarted cautiously at a lower dose.



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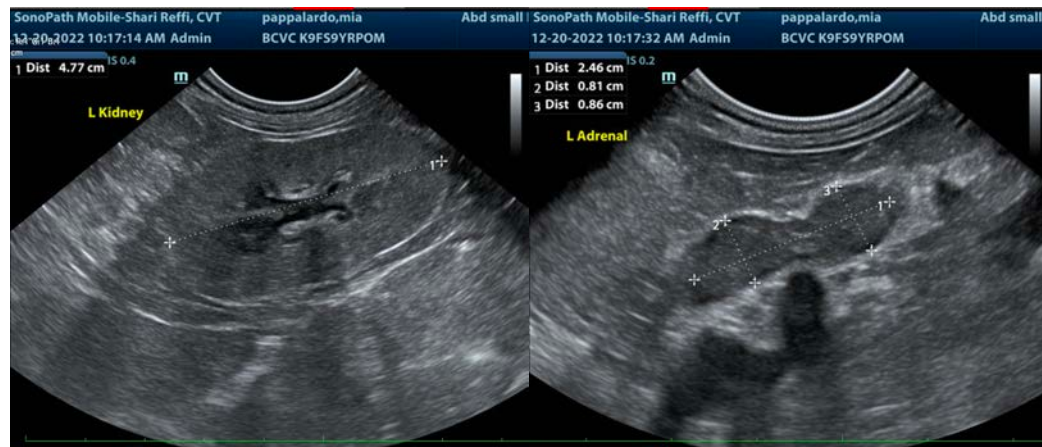
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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
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