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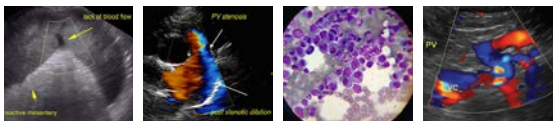


ANIMAL SOUNDS NW
MOBILE VETERINARY ULTRASOUND
IMAGING PERFORMED BY
AnimalSoundsNW.com 541-357-9423

PATIENT
Bella Thuresson

SPECIES
Canine

BREED
Labrador Retriever X

SEX
Spayed Female

AGE
14 Years

WEIGHT
47.3 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
Jenna Walsh, CVT

HOSPITAL NAME
West Eugene AH

REFERRING VET
Dr. Larsen

INVOICE
43476

DATE
6/27/23

PRESENTING CLINICAL SIGNS

Intermittent symptoms of a bladder infection. Primary Question/Differential to Be Answered in This Exam Cause of proteinuria/hematuria (urolith, neoplasia, open). Assess kidneys for involvement in symptoms/concerns

Abnormal PE/Chem/CBC/UA Results: Persistent proteinuria, intermittent hematuria. Early azotemia/renal disease

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 right kidney measures 6.6 cm. The left kidney measures 6.6 cm. Multiple small bilateral cortical cysts are present.

Adrenal Glands

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 right adrenal gland measures 3.29 cm long x 1.08 cm at the cranial pole and 0.85 cm at the caudal pole. The left adrenal gland measures 2.96 cm long x 0.47 cm at the cranial pole and 1.2 cm at the caudal pole.

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.

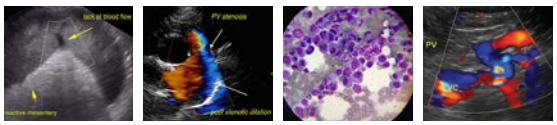
Liver

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. An approximately 1.0 cm in diameter anechoic/cystic lesion is noted in the mid right liver. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as 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.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract



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appears patent. There is some subtle, distal progressive shadowing in the pylorus that could suggest concurrent foreign material such as a hairball versus other. This finding should be interpreted in combination with clinical signs, etc. that support foreign material.

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.

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.

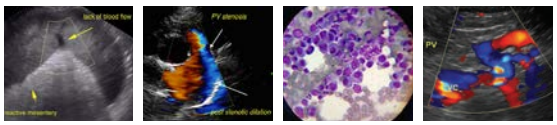
There is no apparent lymphadenopathy noted in these images.

ULTRASONOGRAPHIC FINDINGS

- Mild bilateral adrenomegaly – consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism vs stress or normal variant. Interpret in combination with clinical signs of hyperadrenocorticism.
- Hyperechoic adrenal nodule (caudal pole left adrenal gland) – Differentials include primary adrenal cortical adenoma or adenocarcinoma, pheochromocytoma, myelolipoma, adrenal hyperplasia secondary to pituitary disease or metastatic disease. Ultrasound alone cannot differentiate between functional and non-functional nodules and/or between benign and malignant disease. Small nodules without other evidence of abdominal disease (to suggest metastatic disease) and/or clinical signs (to suggest adrenal disease) are most often incidental and should be monitored.
- Age related kidney changes with small bilateral cortical cysts
- 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.
- Hepatic cyst

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Further recommendations for this patient's reported proteinuria and azotemia are partially dependent on the degree of change as well as the urine specific gravity as well as clinical signs, etc. If early or emerging kidney disease is suspected based on laboratory results, testing for Leptospirosis is recommended. Additionally, if the urine sediment is quiet, a urine protein to creatinine ratio should be



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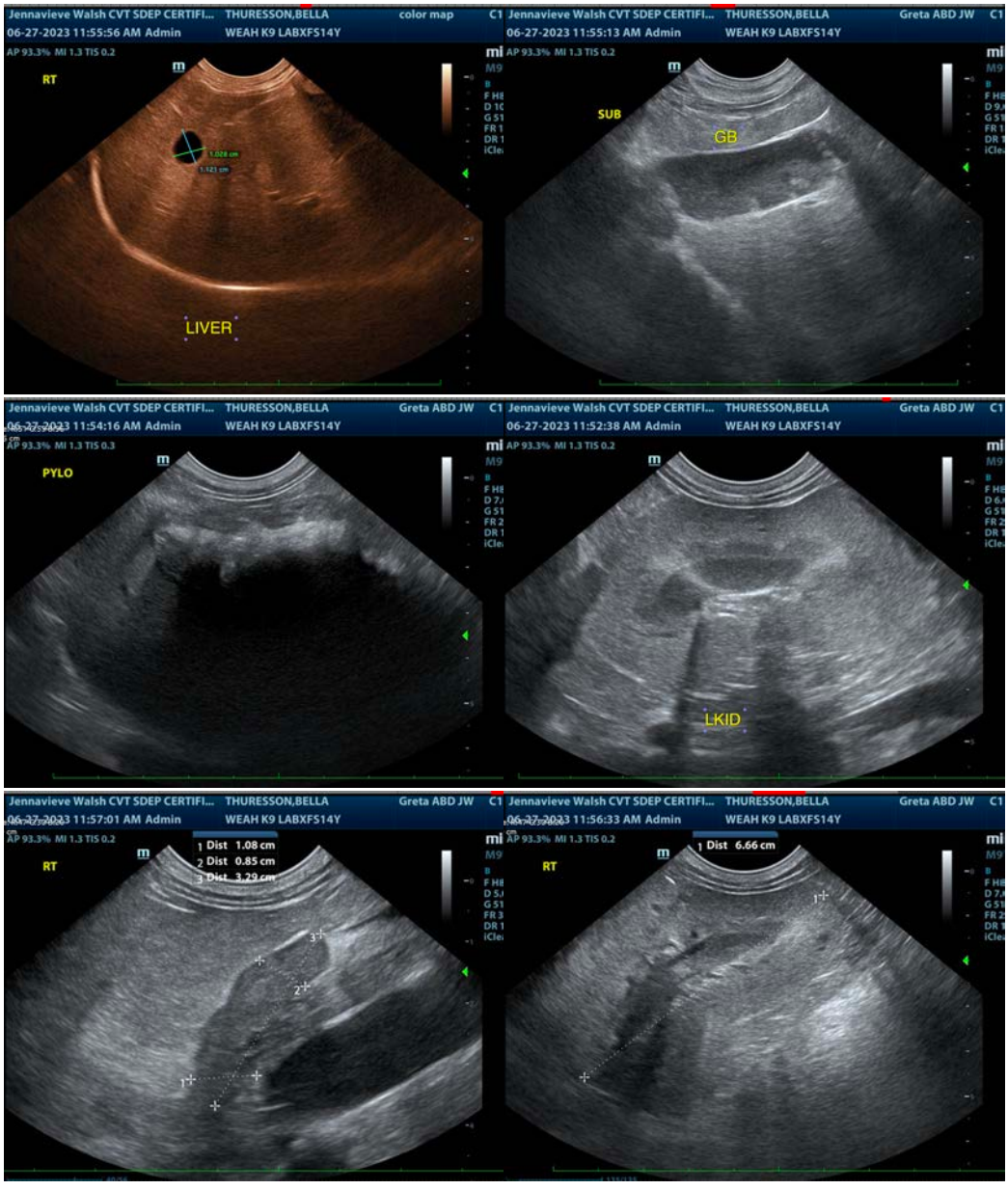
considered for protein quantification, and if not recently evaluated, a blood pressure is recommended.

While mild adrenal gland changes are present, further evaluation for hyperadrenocorticism is not typically recommended without supporting clinical signs of hyperadrenocorticism and/or in the face of untreated current illness.



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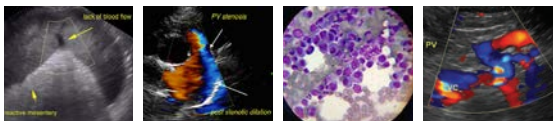

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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