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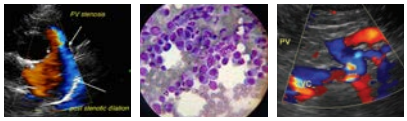

SonoPath
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DATE

6/29/22

PATIENT

Roxy Dobrovolny

SPECIES

Canine

BREED

Pit Bull

SEX

Spayed Female

AGE

9/30/11

WEIGHT

43.9 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Paradise AH

REFERRING VET

Dr. Riehl

INVOICE

39099

PRESENTING CLINICAL SIGNS

Progressive liver enzyme elevations. Weakness (hx DJD). Clinically looks cushingoid (potbellied, thin haircoat), but NOT PU/PD/PP/no panting.

Current Medications: Galliprant, Robaxin. O to give Trazodone prior to drop off.
Lab Results: ALT 220 HIGH 18-121 U/L, AST 35 16-55 U/L, ALP 2202 HIGH 5-160 U/L, GGT 58 HIGH, USG=1.024 (first morning). Will submit UCCR, T4 normal.
Date of Previous IntraPet Ultrasound: 7/21/21. See attached.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

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 left kidney has a normal shape and size (5.91 cm) with pinpoint non-obstructive nephroliths. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (6.23 cm) with larger non-obstructive nephroliths measuring 0.52, 0.40, and 0.20 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is borderline large in size measuring 1.03 cm at the cranial pole, 1.11 cm at the caudal pole, and 3.2 cm in length. It is observed in its normal position cranial to the left renal artery. It is somewhat abnormal in appearance in that it is large and there is a small protrusion from the medial mid body aspect of the adrenal gland measuring 0.44 cm. This could be consistent with vascular invasion, an early mass lesion, or an anatomic variant.

The right adrenal gland is normal/borderline large in size measuring 0.88 cm at the caudal pole. 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.

Liver

The liver is large in size, and normal in 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 significantly distended. Some areas of the wall appear mildly thickened with adherent debris. There is a large amount of primarily non-organized echogenic debris. There is no evidence of

bile duct dilation. There is a 0.39 cm hyperechoic shadowing structure consistent with an intraluminal stone. These changes can be consistent with an early gall bladder mucocele.

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 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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 normal and isoechoic to surrounding 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.

ULTRASONOGRAPHIC FINDINGS

- Bilateral adrenomegaly – 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.

- Irregularity in the mid medial aspect of the left adrenal gland – There is a small irregularity in this region of the adrenal gland, which could be consistent with an early mass lesion/vascular invasion, or could represent an anatomic variant. Recommend advanced imaging or close monitoring with ultrasound.

- Large, heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

- Large amount of adherent debris within the gallbladder with a small stone visualized – Recommend initial medical management and close monitoring.

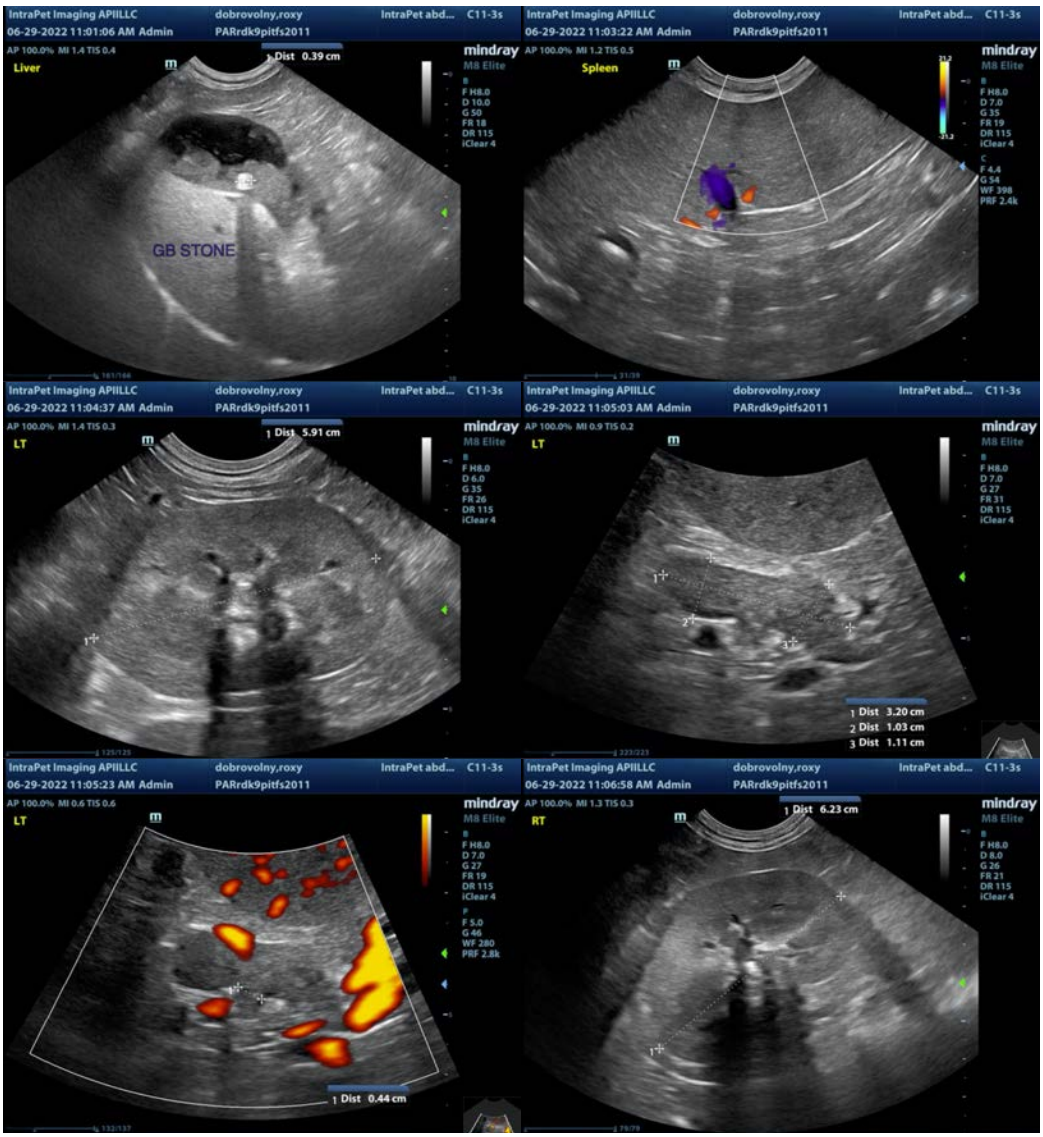
- Decreased corticomedullary distinction in both kidneys with non-obstructive nephroliths – The bilateral renal findings are consistent with age-related change.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Many of the changes observed could be consistent with Cushing's disease, including enlarged adrenal glands and a heterogeneous large liver. Additionally, there is an irregularity to the left adrenal gland that should be monitored closely (recheck in 6-8 weeks). Alternately, a contrast CT scan would provide better detail of this region, as an early left adrenal mass lesion cannot be ruled out. Typically, treatment is aimed at controlling the clinical signs, so depending on concerns for general clinical abnormalities, adrenal function testing could be considered, and blood pressure evaluation is strongly recommended.

Both kidneys have decreased corticomedullary distinction and non-obstructive nephroliths. Recommend urinalysis, culture and blood pressure evaluation to obtain a baseline. These changes are likely consistent with chronic progressive renal disease, and the stones do not appear to be causing any problems at this time.

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



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.

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