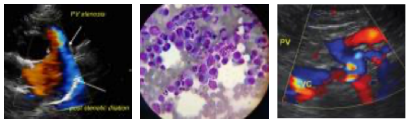
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
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DATE

6.27.2022

PATIENT

Ravyn Basham

SPECIES

Canine

BREED

Yorkie Mix

SEX

Spayed Female

AGE

3/30/2010

WEIGHT

13.6 lbs

INTERPRETED BY

Andrea Nicastro, DMV, Diplomate DACVIM (Small Animal Internal Medicine)

HOSPITAL NAME

Everhart Veterinary Clinic

REFERRING VET

Dr. Notarangelo

INVOICE

11157

PRESENTING CLINICAL SIGNS

Long-term diabetic, mostly well-controlled until recently. Chronic hypertension and proteinuria, managed. History of cataract surgery.
6/15/22: Urinary tract infection and hypoglycemia diagnosed 10 days ago. Pet has been in and out of the hospital for hyporexia and vomiting. Most recent visit 6/25, has been hospitalized since for GI support and to revisit ultrasound.

Current Medications: amlodipine 2.5 mg am, 1.25 mg pm, telmisartan 5 mg BID, ophthalmic drops, cerenia 6 mg IV since 6/25, mirtazapine 3.75 mg PO since 6/25, convenia 6/25/22
Lab Results: 6/20/22: (at ER): BUN 726, BUN 81, phos 13, ALKP 1332
6/15/22: ALKP 1129,3+ proteinuria, rods in urine. 10/9/21: ALKP 549
Date of Previous IntraPet Ultrasound: 10/14/21. See attached.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Stephanie Pearce RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is mildly distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The **left kidney** is normal in size (4.28 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Mild to moderate pyelectasia is present (0.40 cm in the transverse plane). There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

The **right kidney** is normal size (4.27 cm in length); with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Moderate pyelectasia is present (0.49 cm in the transverse plane). There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The **left adrenal gland** is normal size (0.47 cm at cranial pole) (0.51 cm at caudal pole) (2.21 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The **right adrenal gland** is upper limits of normal size (0.63 cm at cranial pole) (0.56 cm at caudal pole) (2.00 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The **spleen** is subjectively normal in size (0.77 cm in width at the level of the hilus) with a slightly slightly irregular medial contour. The parenchyma is of appropriate echogenicity and echotexture. Pinpoint hyperechoic foci are observed throughout the parenchyma. In addition, a few, small, ill-defined myelolipomas are observed in the region of the hilus. Splenic vasculature appears normal with no evidence of thrombosis.

Liver
The liver is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion.

The **gall bladder** lumen is moderately distended. The wall is thin and smooth. A small to moderate amount of aggregated, echogenic, partially dependent debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal
The **stomach and intestine** are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The ileocecocolic junction and colonic wall are normal. There is no evidence of an obstructive pattern.

Pancreas
The base and limbs of the **pancreas** are visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Free Abdomen
The **peritoneal cavity** is normal. There is no evidence of inflammation or effusion. The abdominal **lymph nodes** are normal/not visible.

Other
A uterine stump is visible and is normal in size (0.54 cm in width). No obvious pathology is observed.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The pancreatic changes are suggestive of minor, age-related remodeling +/- fibrosis. Concurrent mild chronic pancreatitis is also possible, particularly if the patient exhibits a positive Murphy's sign.

Secondary Findings

- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.
- Gall bladder debris, non-mucocele
- Bilateral, chronic, age-related renal changes with dystrophic mineralization.
- The bilateral pyelectasia could be secondary to age-related pancreatic remodeling, pyelonephritis, PU/PD (if applicable), fluid therapy or some combination thereof. The pyelectasia is a new finding compared to the previous sonogram.
- Suspected splenic myelolipomas

- The pinpoint hyperechoic foci within the splenic parenchyma likely represents dystrophic mineralization. This is commonly seen with endocrinopathies and is considered an incidental finding.

- Visible uterine stump, likely incidental

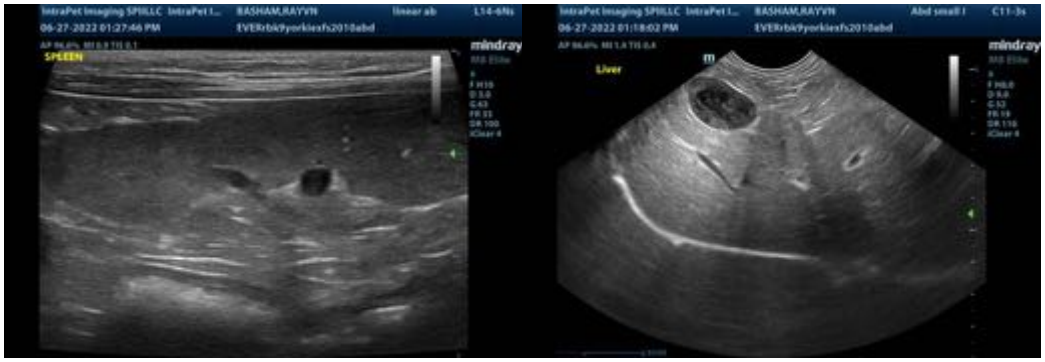
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

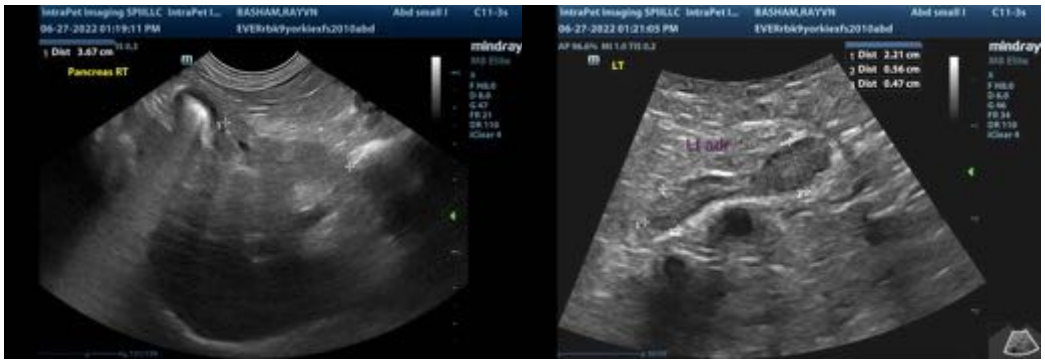
- Consider a cPLI +/- a full GI panel (i.e., serum cobalamin and folate, TLI and cPLI) to further assess for pancreatitis and microscopic gastrointestinal disease.

- Continued supportive care for the urinary tract infection/pyelonephritis is recommended. Consider initiation of a fluoroquinolone, which has good renal tissue penetration.

- Given the patient's age, consider thoracic radiographs to assess for occult disease. in the chest.

- Serial monitoring (i.e., every 3-4 months) of the patient's liver values is recommended. If values continue to increase, consider a repeat ultrasound +/- further hepatic workup.





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.

Andrea Nicastro, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
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