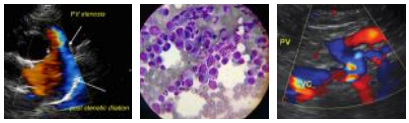
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE

6/16/2022

PATIENT

Bella Ellis

SPECIES

Canine

BREED

Shepherd Mix

SEX

Spayed Female

AGE

7/5/2010

WEIGHT

56 lbs

INTERPRETED BY

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

HOSPITAL NAME

Everhart VH

REFERRING VET

Dr. Notarangelo

INVOICE

11095

PRESENTING CLINICAL SIGNS

History of Cushing's disease, liver nodules and small intestinal disease. Extensive management by internal medicine. Pet has been very stable on trilostane and liver support. Recent increase in liver values and new proteinuria.

Current Medications: since 2019: trilostane 26 mg BID, denamarin large
ursodiol 390 mg SID.
Lab Results: 5/27/22: ALKP 2997, ALT 154 SG 1.033 2+ protein. 12/7/21: ALKP 2904, ALT 171, PSL 491, SG 1.009, 1+ protein
Date of Previous IntraPet Ultrasound: Several previous. Most recent 2 attached.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Rachel Brilhart, RDMS.

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 moderately 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 size (5.98 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (6.40 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is enlarged (1.44 cm at cranial pole) (1.22 cm at caudal pole) (3.32 cm in length); with a slightly irregular shape. A 0.62 x 0.46 cm hyperechoic nodule is observed at the cranial pole. The remaining parenchyma is slightly heterogenous with some loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is enlarged (1.28 cm at cranial pole) (1.06 cm at caudal pole) (3.26 cm in length); with a slightly irregular shape. A 0.85 x 0.56 cm irregular, hyperechoic nodule is observed at the cranial pole. The remaining parenchyma is subtly heterogenous in appearance with some loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.94 cm in width at the level of the hilus) with a normal capsular contour. The parenchyma is subtly mottled in appearance. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively enlarged with swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely heterogenous in appearance with numerous, varying-sized hypoechoic nodule/areas throughout the organ, the largest measuring 2.55 cm in its longest dimension. In addition, a 1.33 cm anechoic cyst is observed on the right side. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. 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 colonic wall is normal. There is no evidence of an obstructive pattern.

Pancreas

The right limb of the pancreas is 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 mesentery in the mid- to caudal abdomen is hyperechoic. Trace free fluid is observed. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Bilateral adrenomegaly. The left adrenal nodule is similar in size to the previous scan. The right adrenal nodule is new. Both nodules trend toward the benign (i.e., nodular hyperplasia) with some potential for emerging neoplasia.

- Hepatic parenchymal changes trend toward the benign (i.e., regenerative nodular hyperplasia and/or vacuolar hepatopathy) with lower potential for inflammatory disease or infiltrative neoplasia.

- The significance of the mild mid- to caudal abdominal peritonitis is unclear. An obvious cause is not identified. Changes are similar to the previous sonogram.

Secondary Findings

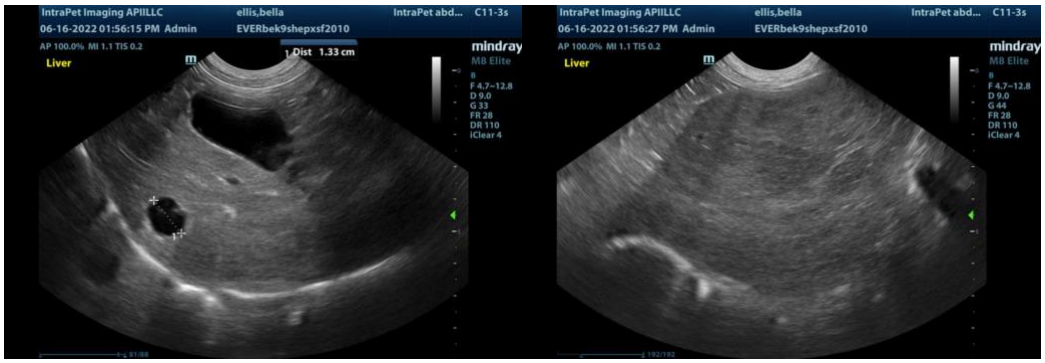
- The splenic parenchymal changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis, splenitis or antigenic stimulation with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).

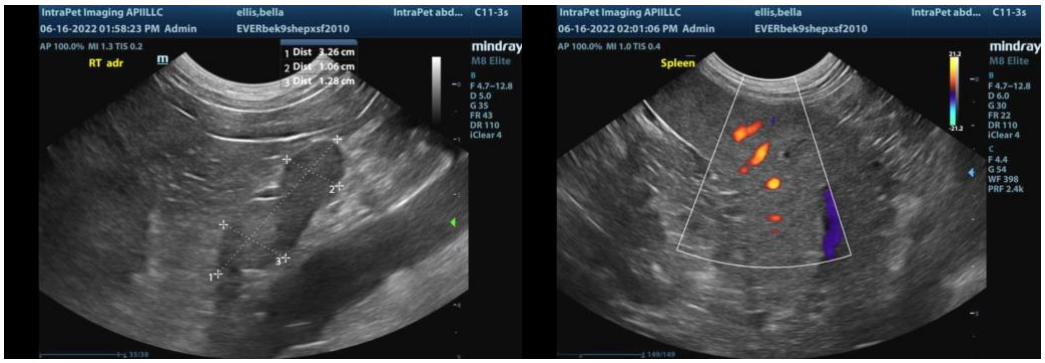
- Minor, age-related pancreatic and renal changes

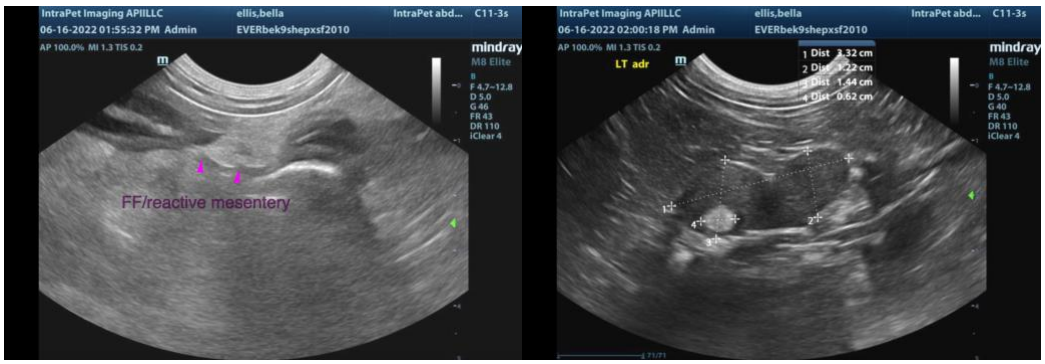
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

If an aggressive approach to the recent elevation in liver enzymes is desired, consider pre-and postprandial serum bile acids hepatic tissue sampling (fine-needle aspirate or surgical biopsy). Surgical biopsies are more likely to yield a definitive diagnosis. If pursued, acquisition of additional hepatic tissue samples for potential copper quantitation, as well as aerobic and anaerobic bile cultures are recommended. Alternatively, if a conservative approach is desired, serial monitoring (i.e., every 3-4 months) of the patient's liver values is recommended. If values continue to increase, consider a repeat abdominal ultrasound, +/- the diagnostics listed above.

Serial monitoring (i.e., every 2-3 months) of the new right adrenal nodule is also recommended to assess for growth.







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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