

**DATE PRESENTING CLINICAL SIGNS**

2/17/22

History: Pt presented for annual exam on 2/14. Pt has been PU/PD for over 1 year in duration. Lab work from last year indicated ALP elevated. Most recently labs ALP elevation has persisted and continues to elevate. Concern for Cushing's disease vs other.

PATIENT

Bobik Ladigin

Lab Results: ALP 851 ALT 133 USG 1.007.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**BREED**

Pit Bull Terrier

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.

SEX

Neutered Male

The visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

AGE

1/1/07

The left kidney has a normal shape and size (6.66 cm). Overall echogenicity is normal with adequate 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, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

49.8 Pounds

The right kidney has a normal shape and size (6.83 cm). Overall echogenicity is normal with adequate 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, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

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

Adrenal Glands

The left adrenal gland is large in size measuring 1.53 cm at the cranial pole, 1.17 cm at the caudal pole, and 3.41 cm in length. It is observed in its normal position cranial to the left renal artery. It is somewhat irregular in appearance in that it is large, hyperechoic, and very irregular, almost nodular in appearance. No focal discrete mass lesions are observed. Their appearance favors a benign differential such as severe hyperplasia, but an underlying neoplastic process cannot be ruled out.

IMAGING PERFORMED BY

Andi Parkinson RDMS

The right adrenal gland is normal in size measuring 1.39 cm at the cranial pole, 0.90 cm at the caudal pole, and 2.43 cm in length. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is somewhat irregular in appearance in that it is hypoechoic, large and irregular, almost nodular in appearance. No focal mass lesions are observed. This appearance favors the possibility of irregular benign hyperplasia, but an underlying neoplasm cannot be ruled out.

HOSPITAL NAME

Everhart VH

REFERRING VET

Dr. Menefee

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. There are numerous irregular hyperechoic, sometimes shadowing foci within the splenic parenchyma, the largest measuring 1.91 cm. The appearance of these lesions favors a benign etiology, but continued monitoring is warranted.

INVOICE

35735

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 moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

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. Duodenum wall measured 0.50 cm. Jejunum wall measured 0.37 cm. 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.

PRIMARY FINDINGS

- Bilateral adrenomegaly – Both adrenal glands are irregular, nodular and hypoechoic. This could be consistent with bilateral severe hyperplasia or with bilateral adrenal tumors.
- 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.

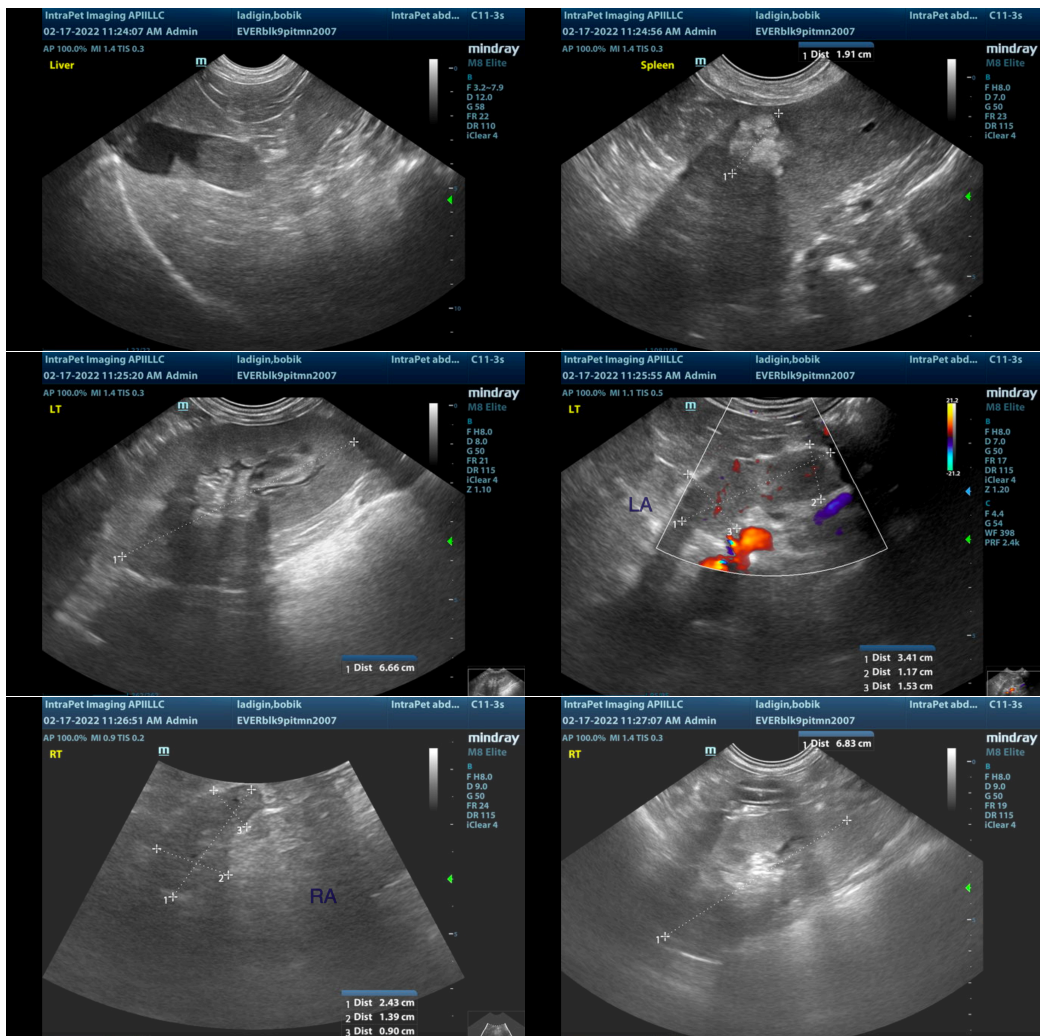
SECONDARY FINDINGS

- Hyperechoic foci/nodules in the spleen – The appearance of these nodules favors a benign process. A fine needle aspirate or continued monitoring could be considered.
- Mild/moderate gallbladder sludge – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Both adrenal glands are large and nodular. This could be consistent with severe hyperplasia or with bilateral adrenal masses. Options moving forward include further evaluation with the assumption that this is pituitary dependent Cushing's, including adrenal function testing, and medical management if indicated. Continued monitoring of the adrenal glands with ultrasound for change should be implemented. Blood pressure should be evaluated.

If more information regarding the adrenal glands is desired, you could consider a fine needle aspirate, provided hypertension is not present. Additionally, recommend urinalysis and culture as part of a Cushing's evaluation.





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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