

**DATE PRESENTING CLINICAL SIGNS**

2/2/23 History of Cushing's disease – controlled. Grade I/II systolic heart murmur – asymptomatic. Dental disease, bilateral cataracts. Patient in very good physical condition, BAR, energetic.

PATIENT

Sprout Long Current Medications: Vetoryl 20 mg BID, Ketorolac ophthalmic.
Lab Results: Alkaline phosphatase 821.
Radiographs: See attached.

SPECIES

Canine Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Andi Parkinson, BS, RDMS.

BREED

Terrier X

SEX

Neutered Male

AGE

12/1/10

WEIGHT

19 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Chadwell AH

REFERRING VET

Dr. Schaupp

INVOICE

44736

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 prostate is normal in size (0.87 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (4.88 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal. Small pinpoint mineralizations visualized.

The right kidney has a normal shape and size (4.68 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal. Small pinpoint mineralizations visualized.

Adrenal Glands

The left adrenal gland is large in size measuring 0.99 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is large in size measuring 0.93 cm at the cranial pole, 0.58 cm at the caudal pole, and 2.33 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 slightly abnormal in appearance in that there is a small hyperechoic nodule in the cranial pole that does not appear to deviate the shape of the adrenal. This lesion measures 0.33 cm x 0.31 cm. There is no evidence of vascular invasion visualized.

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 is an ill-defined hyperechoic nodule visualized in the mid body of the spleen.

Liver

The liver is subjectively normal in size, and 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 gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. 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 uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Duodenum wall measures 0.50 cm. Jejunum wall measures 0.35 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

- 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. In this patient the primary differential would be a vacuolar hepatopathy.
- Small hyperechoic nodule visualized in the cranial pole of the right adrenal gland – This lesion does not deform the adrenal and could be incidental, but an early neoplastic lesion cannot be ruled out.
- Mildly thickened small intestine – The mild small intestinal wall changes may be a normal variant in this patient or could be consistent with an inflammatory process (e.g., inflammatory bowel disease).
- Bilateral adrenomegaly - This is consistent with the diagnosed Cushing's disease.

SECONDARY FINDINGS

- Small hyperechoic splenic nodule visualized – This likely represents a benign lesion, although continued monitoring is warranted.

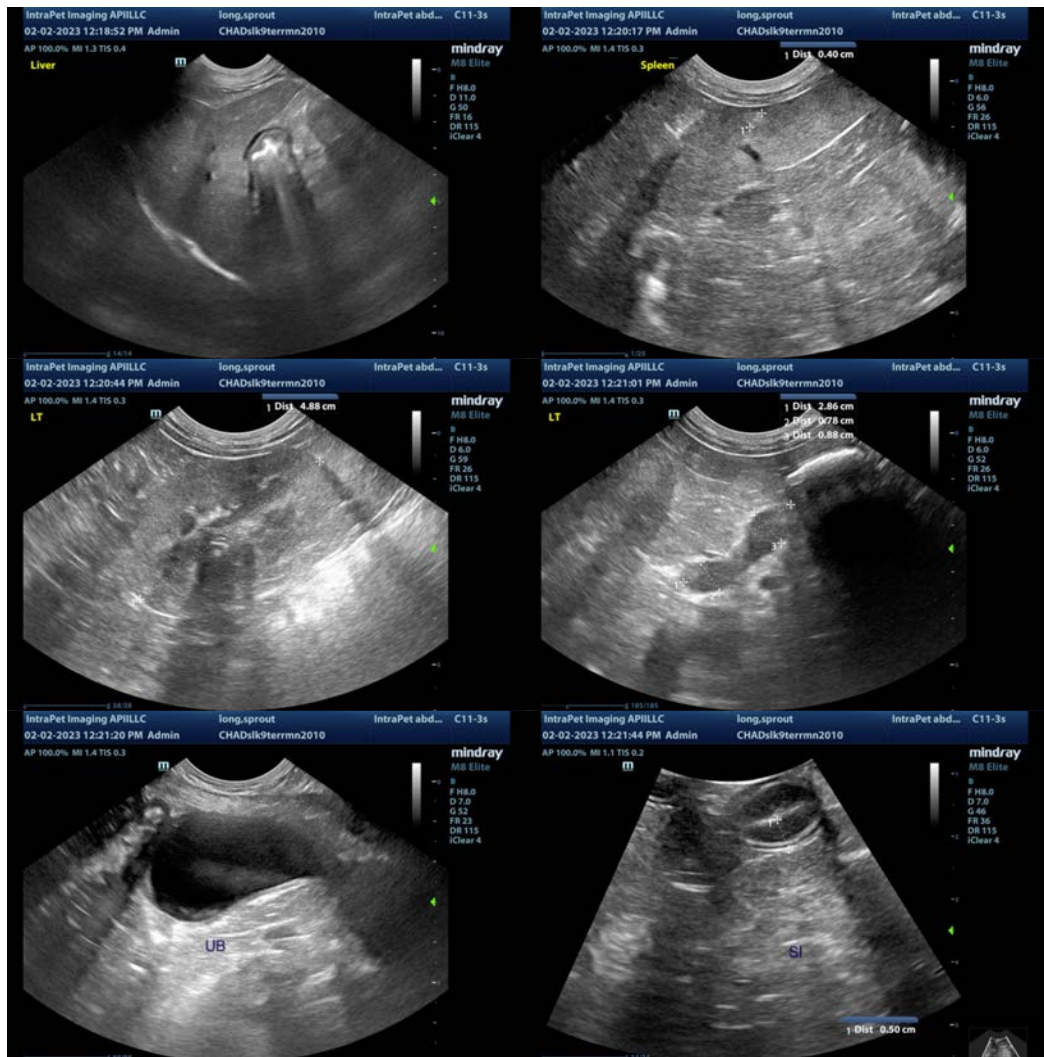
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

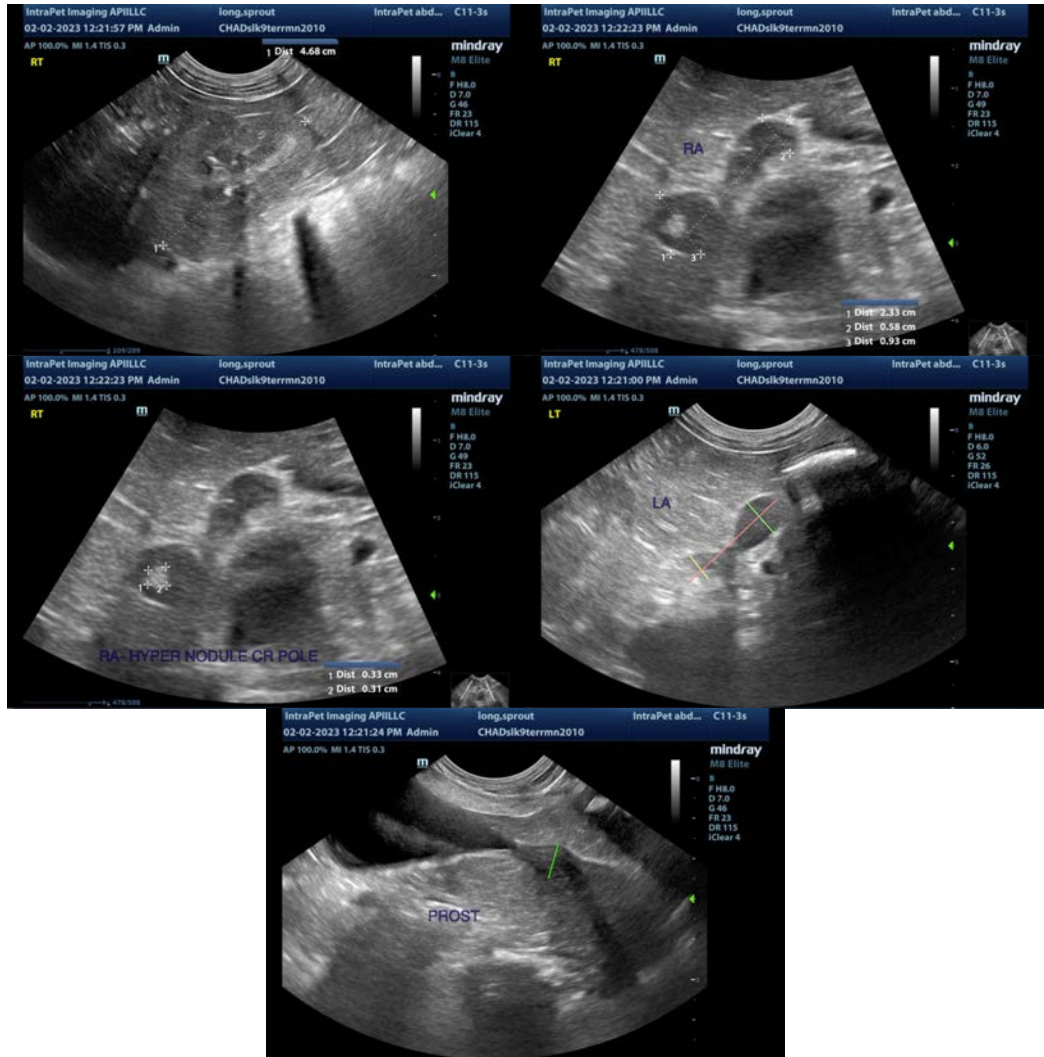
There is a small hyperechoic nodule visualized on the cranial pole of the right adrenal gland. This could very well be an incidental finding, less likely an early neoplastic lesion. Recommend a blood pressure evaluation and continued monitoring with ultrasound (recheck in 2-3 months).

The liver appears somewhat heterogeneous. This would be common for an individual with Cushing's disease. No focal lesions are visualized. If there is concern for a more significant issue, a liver function test and a fine needle aspirate could be considered.

The bowel subjectively appears mildly thickened with intact wall layering. If chronic GI signs are present, consider a workup. Otherwise, this could be within normal limits for this individual.

Recommend three view thoracic radiographs to evaluate for possible 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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