

**DATE**

5/12/22

**PRESENTING CLINICAL SIGNS**

Elevated liver enzymes at AAVEC last week.

Current Medications: Pimobendan, Benazepril, Spironolactone, Apoquel, HG/NG, Furosemide, Diltiazem. Lab Results: See attached.

**PATIENT**

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Stephanie Pearce RDCS, RVT.

Lita Angeline Capella

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

**BREED**

Beagle

**SEX**

Spayed Female

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for this age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right kidney measured 6.26 cm. The left kidney measured 6.94 cm.

**AGE**

2/28/12

**Adrenal Glands**

The right adrenal gland revealed a hyperechoic nodule at the cranial pole measuring 1.34 x 1.26 cm. Capsular expansion was noted without capsular escape or vascular invasion. The right adrenal gland was not vascular and the vena cava was free of evident invasion. The right adrenal measured 2.4 x 1.47 cm at the cranial pole and 0.74 cm at the caudal pole. The left adrenal gland measured 2.48 x 0.64 cm at the caudal pole and 0.53 cm at the cranial pole.

**WEIGHT**

34.4 lbs

**INTERPRETED BY**Eric Lindquist, DMV  
DABVP, Cert. IVUSS**Spleen**

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

**HOSPITAL NAME**

Bay Country VH

**REFERRING VET**

Dr. Smith

**Liver**

The **liver** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. Occasional, hypoechoic nodule was noted in the liver and was non-disruptive measuring up to 1-2 cm. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia.

**INVOICE**

30330

**Gastrointestinal**

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

### Pancreas

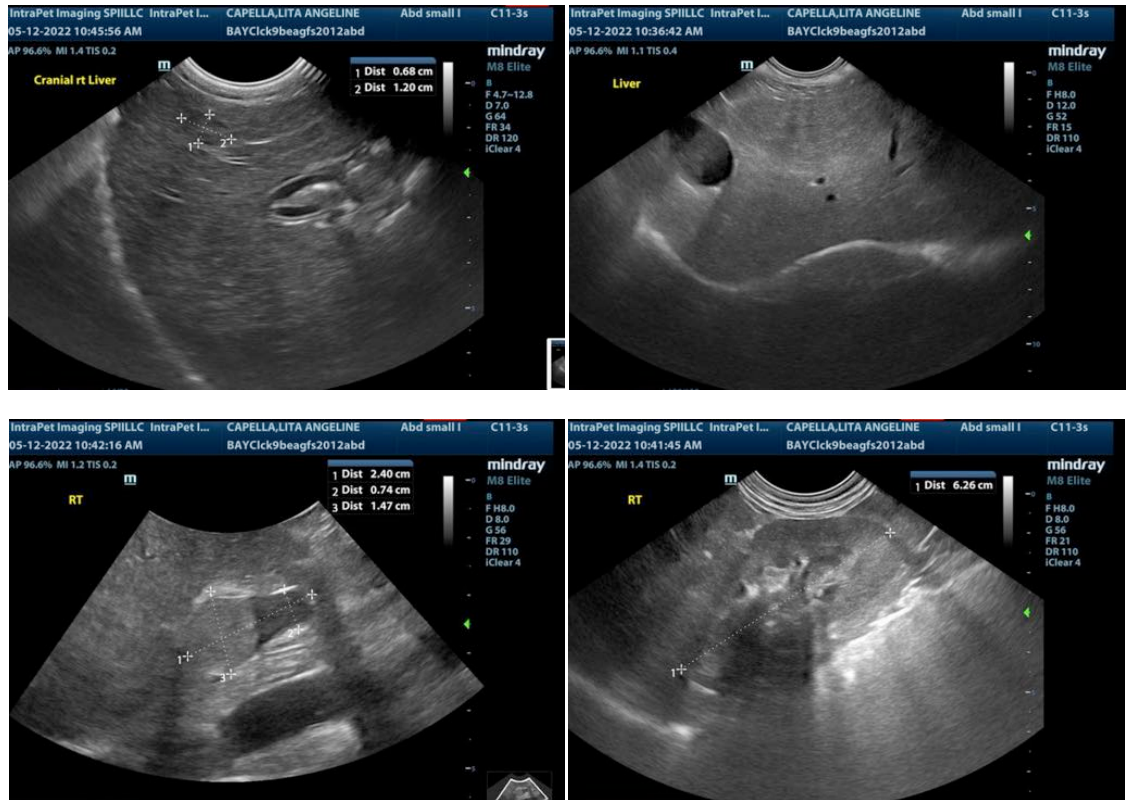
The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

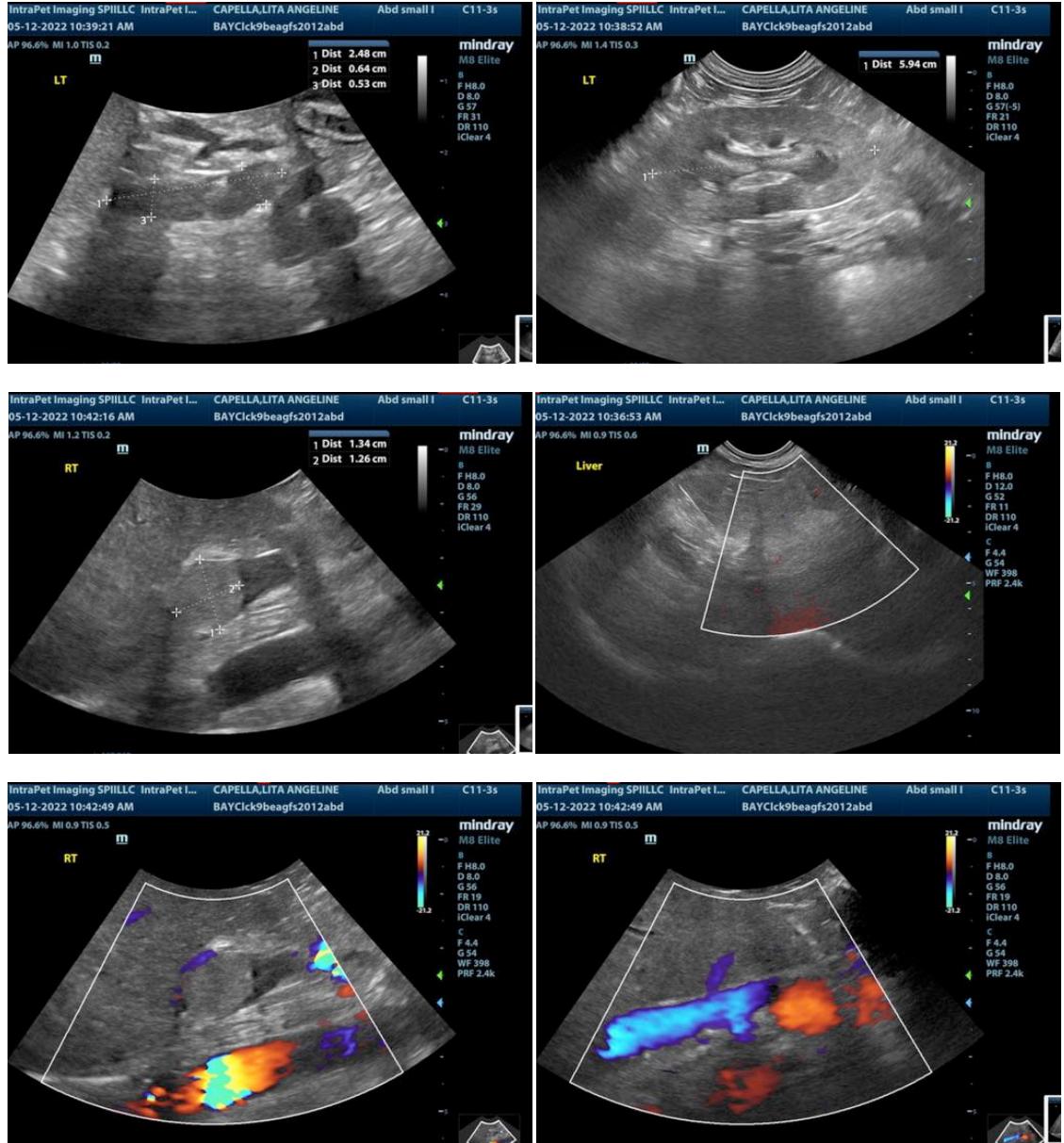
### ULTRASONOGRAPHIC FINDINGS

Right adrenal gland nodule. Adenoma, adenocarcinoma or less likely pheochromocytoma.  
Benign hepatopathy with hepatic nodule.

### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The right adrenal nodule should be monitored. If the patient appears Cushingoid then work-up for adrenal dependent Cushing's is indicated. Right adrenalectomy, liver inspection and biopsy could all be justified in this patient especially if the right adrenal gland is increasing in size. However, this appears subjectively benign. FNA of the liver nodule could be considered or monitoring with follow-up ultrasound in a month.





The information and recommendations provided are based on the images presented by the referring veterinarian. 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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