

**DATE PRESENTING CLINICAL SIGNS**

11/29/22 Acute illness (reduced appetite, PUPD, diarrhea). Acutely elevated liver enzymes (hepatocellular pattern). Mildly elevated bile acids. Have not examined yet (first visit tomorrow). rDVM rads show enlarged, rounded liver.

**PATIENT**

Cami Rosenmerkel

Current Medications: None listed.

Lab Results: 11/15: BUN 8, ALT 1396, ALP 757, GGT 19, chol 376. SBA pre 29.2 and post 51.7

Date of Previous IntraPet Ultrasound: No previous.

**SPECIES**

Sedation: Not required to complete full diagnostic ultrasound.

Canine

Stat Report: Not requested.

**BREED**

Beagle

**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.

**SEX**

Spayed Female

The left kidney has a normal shape and size (5.79 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, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**AGE**

11/14/09

**WEIGHT**

13 kg

The right kidney has a normal shape and size (5.61 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, 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 normal in size measuring 0.60 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.

**IMAGING PERFORMED BY**

Andi Parkinson RDMS

The right adrenal gland is normal in size measuring 0.94 cm at the cranial pole, 0.60 cm at the caudal pole, and 2.48 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 abnormal in appearance in that there is a hyperechoic irregular nodule in the cranial pole, measuring approximately 0.73 cm x 0.63 cm. This does not significantly deform the adrenal margins, and no evidence of vascular invasion is visualized.

**HOSPITAL NAME**

Nexus Vet Specialists

**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. No focal parenchymal abnormalities are visualized.

**REFERRING VET**

Dr. Steele

**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.

**INVOICE**

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The gallbladder lumen is moderately distended. The wall of the gall bladder appears hyperechoic and slightly irregular and thickened, measuring at 0.31 cm. There is an intraluminal shadowing choleliths measuring at 1.0

cm. The proximal bile duct appears slightly dilated and has a hyperechoic wall measuring at 0.58 cm. The more distal bile duct is not visualized.

### ***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 measures 0.47 cm. Jejunum wall measures 0.38 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.

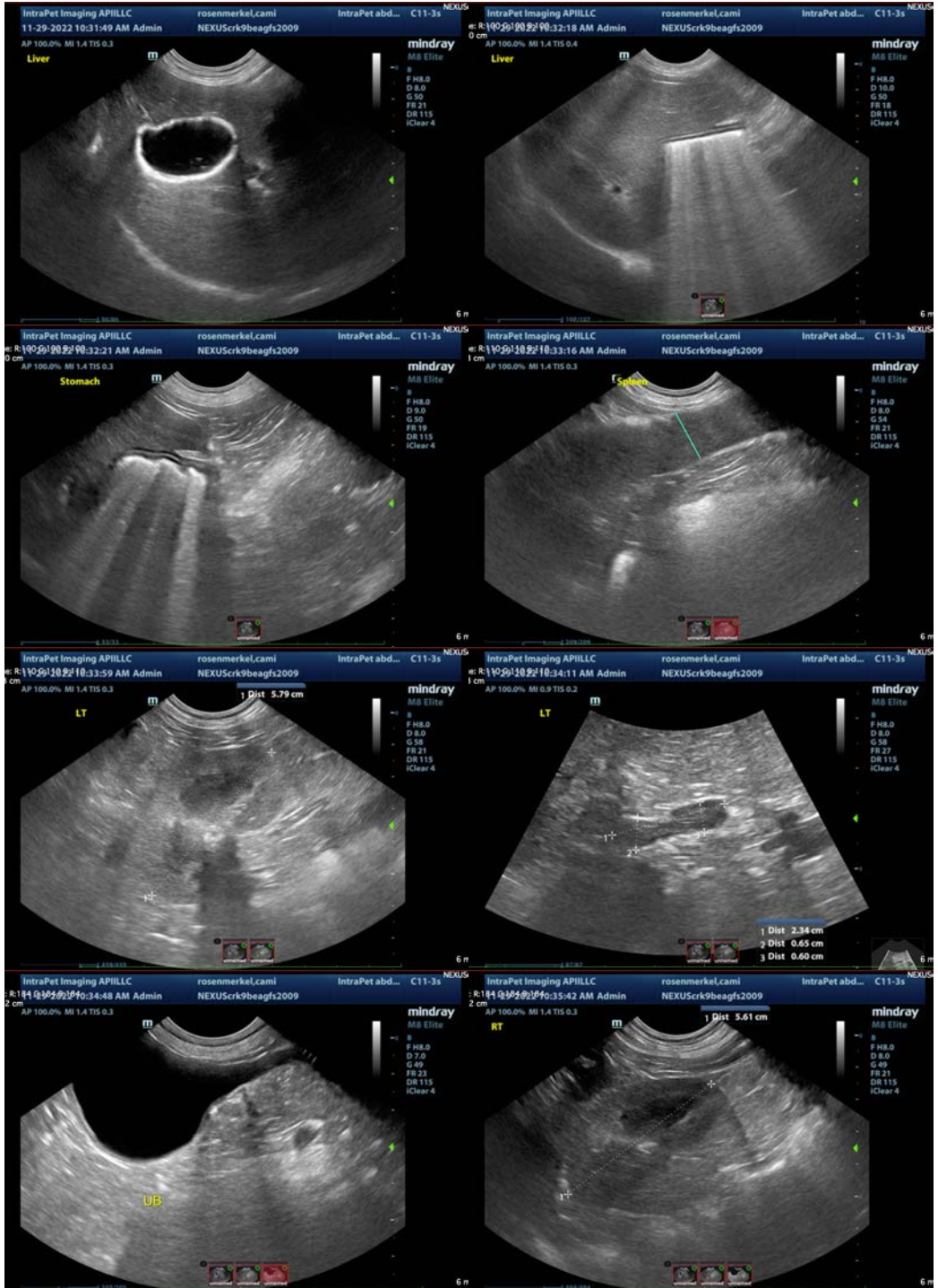
## **ULTRASONOGRAPHIC FINDINGS**

- 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.
- Hyperechoic gallbladder wall with an intraluminal stone and prominent proximal bile duct – Gallbladder wall mineralization can be seen associated with cholecystitis and rarely biliary neoplasia.
- Hyperechoic nodule on the cranial pole of the right adrenal gland – This could represent an incidental lesion, an adenoma, carcinoma, pheochromocytoma, etc.

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Ultrasonographic lesions visualized on today's exam include a hyperechoic, mildly irregular gallbladder wall with an intraluminal choleliths, a large heterogeneous liver, and a hyperechoic nodule on the cranial pole of the right adrenal gland.

Further diagnostic and therapeutic recommendations regarding this exam to be made by Dr. Cara Steele.





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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