

**DATE PRESENTING CLINICAL SIGNS**

3/16/23 Progressive weight loss, decreased appetite over past 2 months, firm stools; thickened intestines noted on exam.

**PATIENT**

Odiele McHale Current Medications: cerenia 16 mg 1/2 tab PO q 24 hrs, mirataz q 24 hrs  
Lab Results: 3/6/23 ALT/AST/AlkP/tBili elevations; T4 18  
Date of Previous IntraPet Ultrasound: No previous.

**SPECIES**

Feline

Sedation: Not required to complete full diagnostic ultrasound.  
Stat Report: Not requested. Limited heart check declined.  
Imaging Performed By: Stephanie Warga RDCS, RVT.

**BREED**

DSH

**Urinary System**

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. 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 calculi. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris.

**SEX**

Neutered Male

**AGE**

11/5/08

The left kidney has a normal shape and size (4.73 cm). Overall echogenicity is slightly hyperechoic 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.

**WEIGHT**

7.6 Pounds

The right kidney has a normal shape and size (4.41 cm) with small hyperechoic cortical mineralizations. Overall echogenicity is slightly hyperechoic 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.

**INTERPRETED BY**

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

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.36 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.

**HOSPITAL NAME**

Everhart Vet Hospital  
Well Pet

The right adrenal gland is normal in size measuring 0.28 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

**REFERRING VET**

Dr. Hess

**Spleen**

The spleen is large (1.39 cm in width at the level of the hilus). The spleen echotexture is heterogenous and mottled/micronodular, 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.

**INVOICE**

45990

**Liver**

The liver is borderline large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is mildly heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is an ill-defined hyperechoic nodule visualized within the parenchyma measuring 1.15 cm.

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 <0.36cm 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. Jejunum wall measures 0.18 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***

There is a moderate to large amount of free abdominal fluid. No lymphadenopathy. The omentum is diffusely hyperechoic.

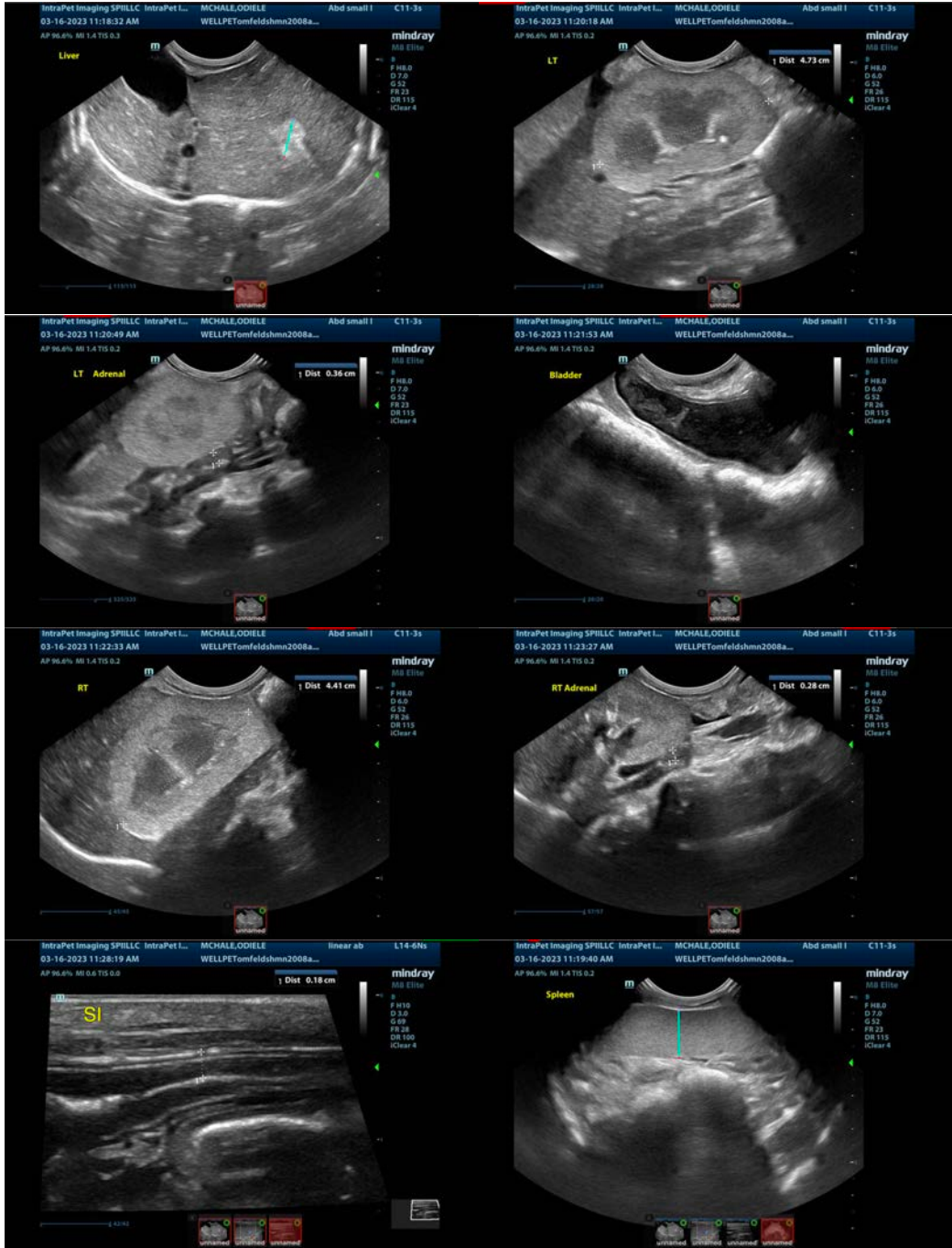
## **ULTRASONOGRAPHIC FINDINGS**

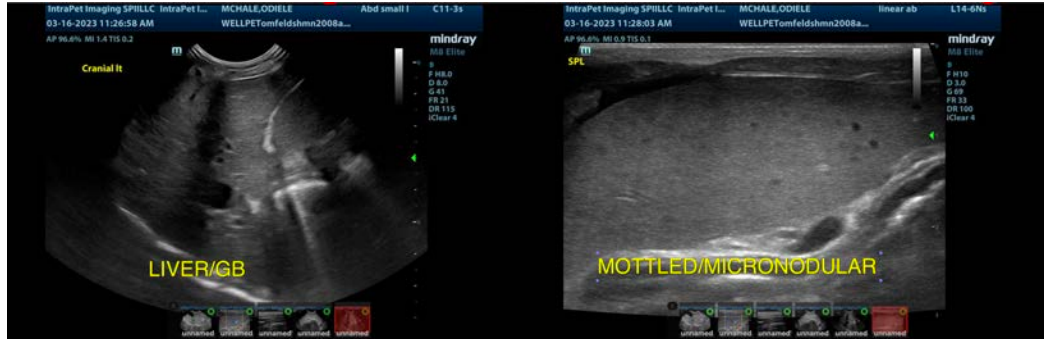
- Echogenic debris in the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.
- Large, heterogeneous liver with hyperechoic nodule – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy. The appearance of the hyperechoic nodules trends towards a benign lesion. Recommend continued monitoring.
- Large, mottled/micronodular spleen – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- Moderate to large volume free abdominal fluid

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

The liver is very large and mottled with very small hypoechoic nodules. Recommend a fine needle aspirate of the spleen, as possible differentials would include round cell neoplasia, passive congestion due to heart disease, etc. Additionally, the liver appears somewhat heterogeneous and borderline large with no significant changes associated with the biliary tract. These changes would be most consistent with a primary hepatopathy. Recommend a fine needle aspirate of the liver, looking for evidence of neoplastic change, inflammation, infection, etc.

If cytologic sampling does not provide a diagnosis, then consider cardiac evaluation to rule out right-sided heart disease and possibly liver biopsies. In the meantime, consider treatment for cholangiohepatitis despite a relatively normal biliary tract, and recommend a urinalysis and culture to further evaluate the echogenic debris in the urinary bladder.





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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