

**DATE**

12/7/21

**PRESENTING CLINICAL SIGNS**

History: Presented for dental prophylaxis and oral tumor biopsy. Pre-op BW WNL, ventricular arrhythmia on ECG, pulmonary nodule L cranial lung lobe. New grade 3/6 heart murmur. Chest rads sent out to Synergy, proceeded with biopsy, results pending.

**PATIENT**

Molly Gubernatis

Current Medications: Rimadyl 150 mg 11/2 and intermittent previous.

Lab Results: CBC, Chem WNL.

Radiographs: 3 view chest: large consolidated opacity left cranial lung lobe.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Not required for a full diagnostic ultrasound.

Stat Report: Not requested.

**SPECIES**

Canine

**BREED**

Boxer

**SEX**

Spayed Female

**AGE**

7/18/09

**WEIGHT**

83.5 lbs

**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 left kidney has a normal shape and size (7.2 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. The left kidney has a small, 0.59 cm cyst, occasional, small, non-obstructive nephroliths. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney has a normal shape and size (7.37 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. Small, non-obstructive nephroliths were noted. There is no evidence of pyelectasia, infarcts or hydronephrosis. 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 0.61 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 normal in size measuring 0.72 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.

**IMAGING PERFORMED BY**

Stephanie Pearce  
RDCS, RVT

**Spleen**

The spleen is subjectively normal in size. The spleen echotexture is heterogenous and mottled, 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.

**HOSPITAL NAME**

Hickory VH

**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. An ill-defined, hypoechoic nodule is visualized on the right side of the liver in the mid parenchyma measuring 1.4 cm. Additionally, there is a small, hypoechoic cyst that measured 1.1 cm. The gallbladder lumen is moderately distended. The wall of the gallbladder 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.

**REFERRING VET**

Dr. Lyle

**INVOICE**

94351

### ***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. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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**

### **PRIMARY FINDINGS:**

- Heterogenous liver with ill-defined, hypoechoic nodule and cystic lesion. The liver is borderline large in size. 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.
- Mildly mottled 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.

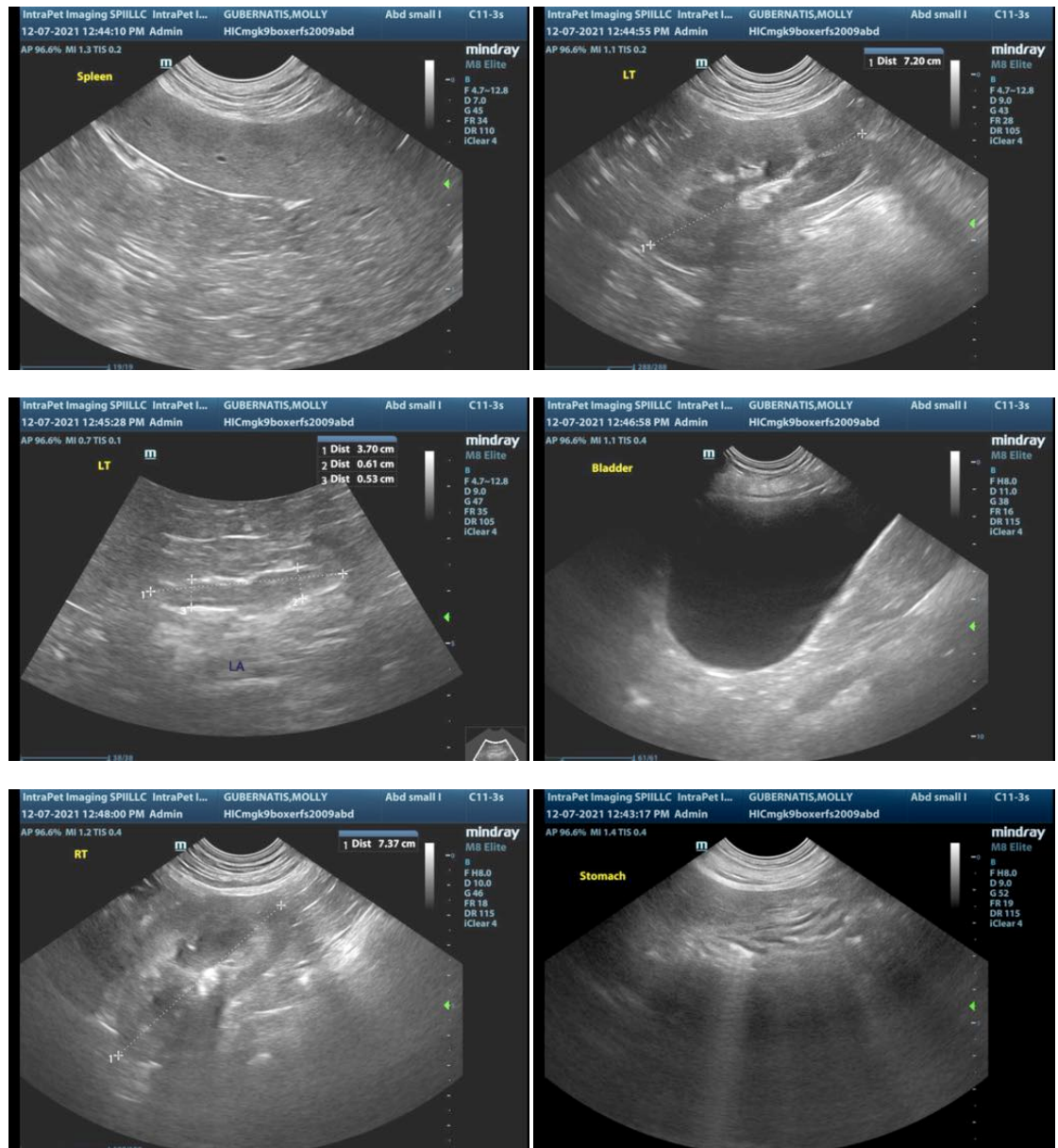
### **SECONDARY FINDINGS:**

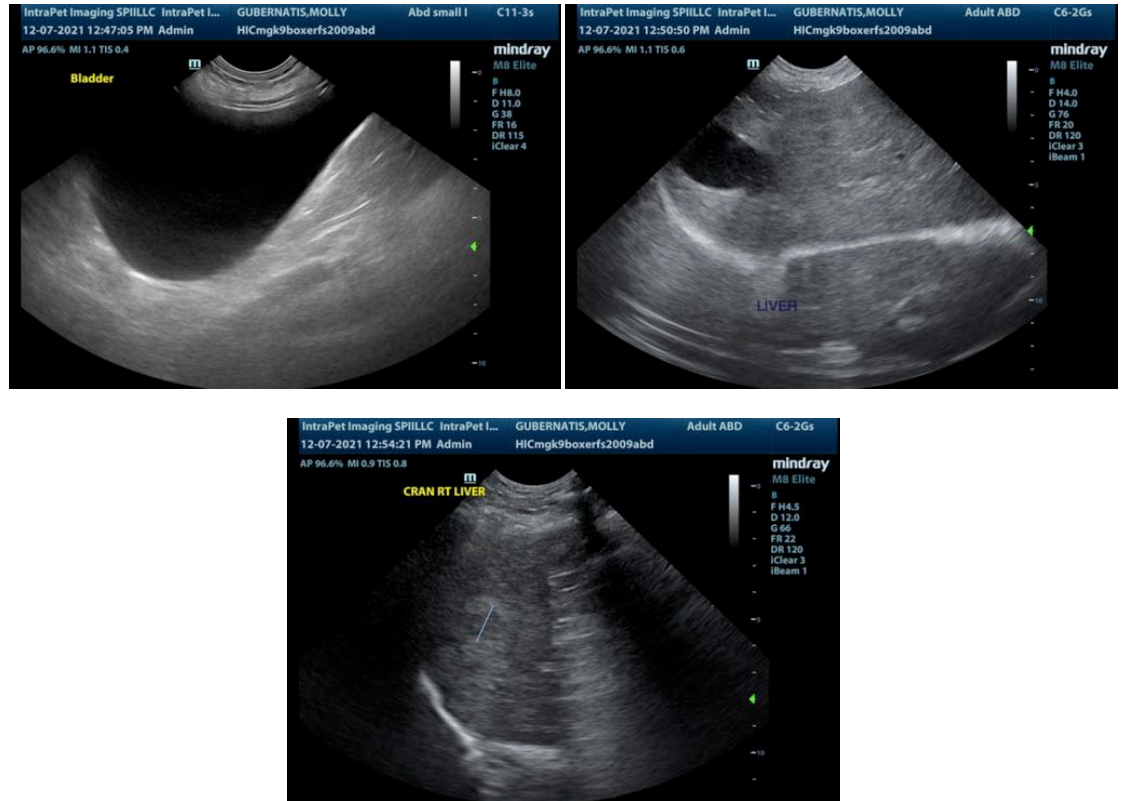
- Non-obstructive nephroliths in both kidneys with a small cortical cyst in the left kidney. The hyperechoic mineralized foci observed at the corticomedullary junction of both kidneys are consistent with small, non-obstructive nephroliths.
- Mild gallbladder sludge. The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

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

The ultrasonographic lesions visualized in this study are relatively mild and non-specific. They could be within normal limits for this older pet. No distinct focal lesions were noted associated with the spleen and the liver lesion is relatively ill-defined. If it can be reached FNA of the liver nodule can be considered, but it is viewed

intracostally and may be challenging to sample. Otherwise, I would consider to continue to monitor. This could be a benign lesion or less likely a metastatic lesion associated with oral mass or lung mass, but this is a possibility. No large primary mass effect is visualized to explain the pulmonary nodule.





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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