

**DATE PRESENTING CLINICAL SIGNS**

3/9/22 Coughing 2-3+ months in duration, progressively getting worse. Fast scan revealed a heterogenous mass at the liver.

**PATIENT**

Chico Keyser Current Medications: Cough tabs ½ TID, Furosemide 12.5mg ½ BID.  
 Radiographs: Thoracic rads VD R and L lateral- evidence of left atrial enlargement, evidence of mixed interstitial lung pattern, few osteoma formation, evidence of mass effect in the abdominal cavity at the level of liver/spleen.

**SPECIES**

Canine Date of Previous IntraPet Ultrasound: No previous.  
 Sedation: Not required to complete full diagnostic ultrasound.  
 Stat Report: Not requested.

**BREED**

Chihuahua

**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**

Neutered Male

**AGE**

The visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

7/4/08

**WEIGHT**

13.42 Pounds

The left kidney has a normal shape and size (4.34 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of 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)

The right kidney has a normal shape and size (4.78 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**IMAGING PERFORMED BY**

Stephanie Pearce  
 RDMS, RVT

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.67 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**

Claws N Paws AH

The right adrenal gland is normal in size measuring 0.61 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. Singh

**Spleen**

The spleen is normal in size and mottled with occasional hyperechoic nodule. One such nodule was visualized measuring 0.57 cm. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

**INVOICE**

36035

**Liver**

The liver is large in size, and normal echogenicity with a very irregular shape. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is a very large cranial abdominal mass effect, which is multilobulated and expansive, slightly hyperechoic to normal hepatic tissue. This lesion is in excess of 8.35 cm x 11.21 cm, and is suspected to be of hepatic origin.

The gall bladder lumen is moderately distended. The wall of the gall bladder 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.

### ***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. Jejunum wall measured 0.37 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 small amount of free abdominal fluid. No lymphadenomegaly. The omentum is of increased echogenicity around the large cranial abdominal mass.

## **PRIMARY FINDINGS**

- Large, multilobulated, hyperechoic liver mass – This mass is very large, disrupting normal anatomic placement of structures within the abdomen. It is suspected to be of hepatic origin, and likely a primary hepatic mass.
- Mottled spleen with rare hyperechoic nodules – 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**

- Decreased corticomedullary distinction in both kidneys – The bilateral renal findings are consistent with age-related change.
- Moderate gallbladder sludge – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.
- Small volume free abdominal fluid

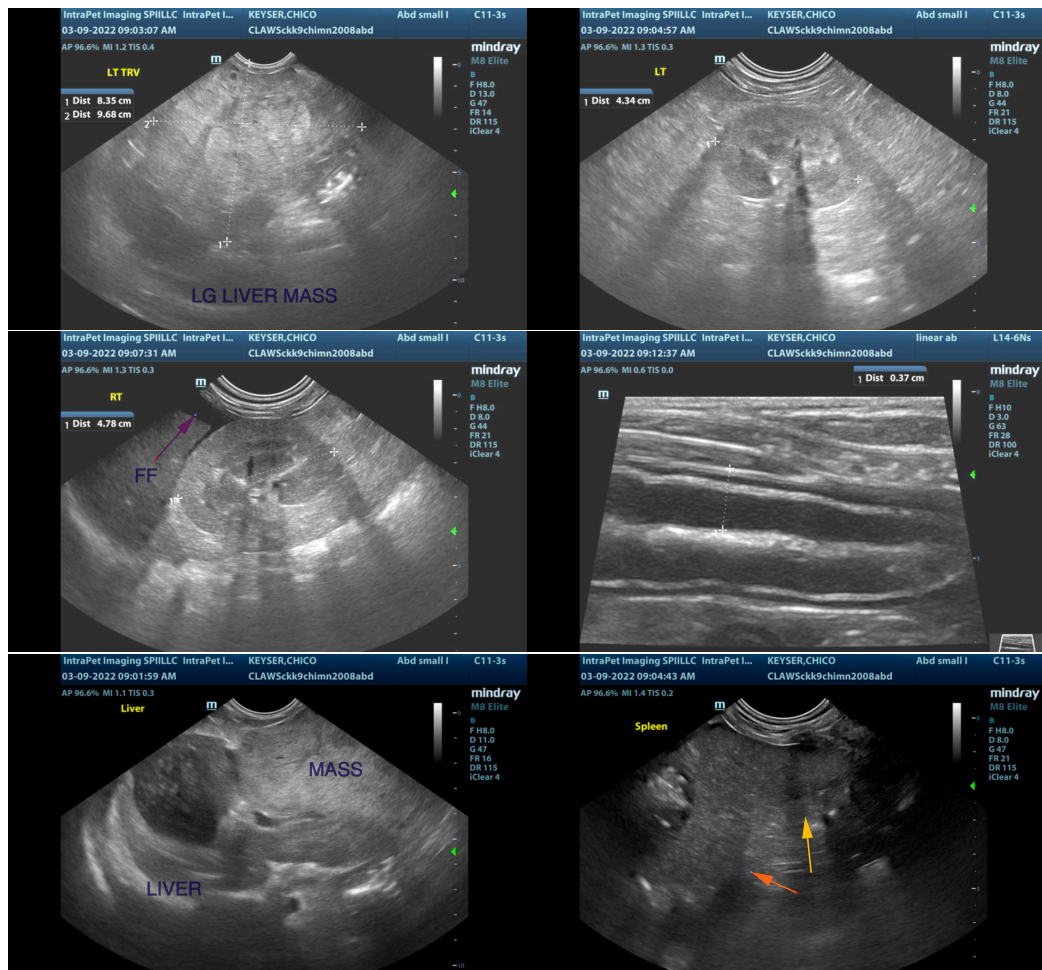
## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There is a very large cranial abdominal mass. This lesion starts caudal to the liver and extends to the mid abdomen, displacing other abdominal structures. Based on its appearance and location, I strongly suspect it to be a hepatic mass lesion. These lesions can have relatively benign behavior, and if they are able to be

removed with surgery, can have a relatively positive prognosis. Consider a CT scan of the abdomen to evaluate for possible surgical removal.

The spleen is relatively normal in size and shape, but has hyperechoic foci and mottling. Consider a fine needle aspirate for further evaluation.

Consider three view thoracic radiographs to rule out 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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