



**PATIENT**

Rusty Suriani

**SPECIES**

Canine

**BREED**

West Highland Terrier

**SEX**

Neutered Male

**AGE**

13 Years

**WEIGHT**

17.5 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Diane McFadden

**HOSPITAL NAME**

East Plane AH

**REFERRING VET**

Dr. Rosen

**INVOICE**

37631

**DATE**

5/12/22

**PRESENTING CLINICAL SIGNS**

PU/PD, distended abdomen, possible hepatomegaly/splenomegaly palpated. Not on any meds  
Abnormal PE/Chem/CBC/UA Results: UCCR 104, ALKP 642, ALT 1416, AST 330, SDMA 8, WBC 20,300; anaplasma chronically positive; PSL incr 242, BUN/crea 32, K 6; UA: protein trace; USPG 1.014

**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 prostate is normal in size (0.92 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (4.7 cm) with a 0.70 cm cortical cyst. 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.

The right kidney has a normal shape and size (4.23 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.

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.57 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 0.58 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.

**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.

**Liver**

The liver is large, irregular in shape, and slightly heterogeneous. The visible portions of the vasculature and biliary tract appear normal. There is a very large, mixed echogenicity, hyperechoic, irregular mass effect arising from the liver, measuring > 8.69 cm x 7.59 cm. This mass lesion is large enough to be visualized from both sides of the liver. More normal, slightly heterogeneous appearing liver is visible deep, adjacent to the gallbladder and on the right side.

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 hyperechoic debris. The cystic and common bile ducts are normal/not visible.



<b>PATIENT</b>	<b><i>Gastrointestinal</i></b>
Rusty Suriani	The stomach is moderately dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.
<b>SPECIES</b>	
Canine	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.)
<b>BREED</b>	
West Highland Terrier	Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.
<b>SEX</b>	
Neutered Male	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.
<b>AGE</b>	<b><i>Pancreas</i></b>
13 Years	The pancreas is prominent and hypoechoic as compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.
<b>WEIGHT</b>	<b><i>Free Abdomen</i></b>
17.5 Pounds	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.
<b>INTERPRETED BY</b>	<b><i>Other</i></b>
Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)	A brief view of the heart was submitted. No significant pericardial effusion was seen.
<b>IMAGING PERFORMED BY</b>	<b>PRIMARY FINDINGS</b>
Diane McFadden	<ul style="list-style-type: none"> <li>• Large, hyperechoic, mixed echogenicity irregular hepatic mass – findings are most consistent with a primary liver mass. Most common differentials would include an adenoma or adenocarcinoma.</li> <li>• Hypoechoic, prominent pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.</li> </ul>
<b>HOSPITAL NAME</b>	<b>ULTRASONOGRAPHIC FINDINGS</b>
East Plane AH	<ul style="list-style-type: none"> <li>• Moderate hyperechoic debris within the gallbladder lumen – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.</li> <li>• Decreased corticomedullary distinction in both kidneys – The bilateral renal findings are consistent with age-related change.</li> </ul>
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- Moderate shadowing debris within the gastric lumen – Correlate with feedings history and abdominal radiographs. If adequately fasted then consider such differentials as delayed gastric emptying or a partial outflow tract obstruction (none visualized).

**SPECIES**

Canine

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There is a very large, irregular hepatic mass visualized. This mass is most consistent with a primary hepatic mass, although other differentials are possible. Recommend a liver function test and advanced imaging (contrast CT scan of the liver to evaluate for possible surgical removal). If it is possible to remove this lesion, often they represent slow growing, non-aggressive tumors, and if removal is possible, then prognosis can be good.

**BREED**

West Highland Terrier

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

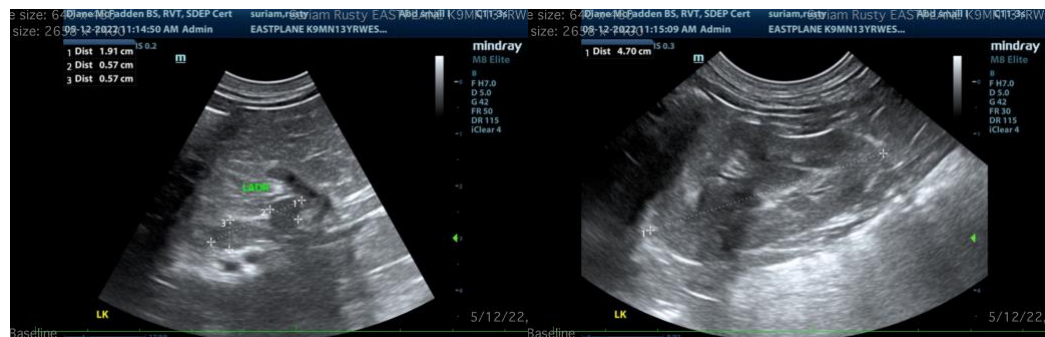
**SEX**

Neutered Male

Both adrenal glands are of normal size. I suspect the PU/PD reported is associated with the hepatic mass present +/- liver dysfunction depending on the liver function test results. Recommend urinalysis and culture.

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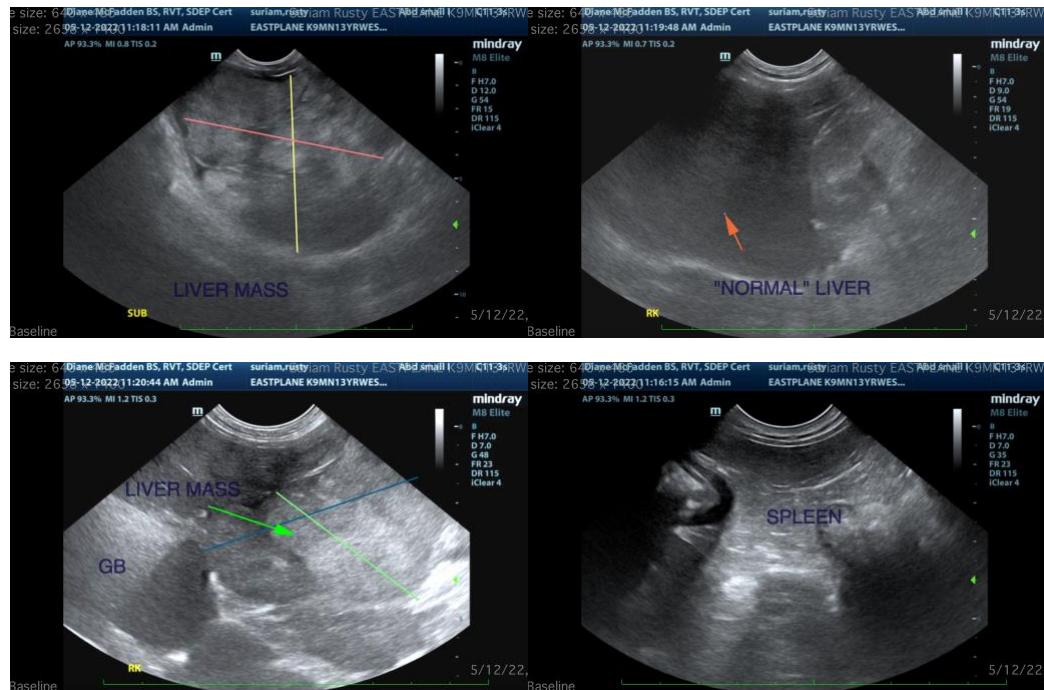
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

kathleen.sennello@sonopath.com