

## PATIENT

Maxx Stewart

## PRESENTING CLINICAL SIGNS

## SPECIES

Canine

## BREED

Rhodesian Ridgeback

## SEX

Neutered Male

## AGE

11 years

## WEIGHT

94 lbs

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Loetitia Saint-Jacques,  
LVT

## HOSPITAL NAME

MountainView AH

## REFERRING VET

Dr Pablo Monedoza

## INVOICE

13542

## DATE

6.30.23

History: Chronic diarrhea, IBD vs intestinal mass vs gastric mass vs pancreatic mass vs other Patient presented on 6/1/23 for evaluation of vomit and diarrhea and generalized weakness. Patient has a history of chronic gastrointestinal issues. On physical exam appeared grossly healthy although abdomen slightly tense. Lab-work results showed elevation in bilirubin, ALT and Albumin. Recommended abdominal ultrasound to evaluate gallbladder disease, liver, pancreas and other organs MEDS: Metronidazole Provable Abnormal PE/Chem/CBC/UA Results: Labs attached

## 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 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.

The left kidney has a normal shape and size (7.21 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. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (7.65 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. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

### Adrenal Glands

The left adrenal gland is normal in size (0.48 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.

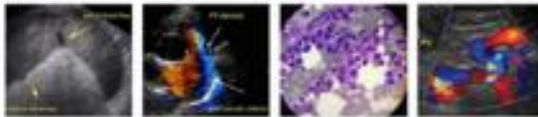
The right adrenal gland is normal in size (0.87 cm at the caudal pole). It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

### 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. There is a hyperechoic nodule visualized within the parenchyma (1.10 cm in diameter). Additionally, there is a hypoechoic, almost "moth-eaten" appearing lesion measured in the cranial third of the spleen (2.07 cm).

### 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. There is a hypoechoic nodule visualized within the parenchyma (2.53 cm in diameter).



## PATIENT

Maxx Stewart The gall bladder 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.

## SPECIES

Canine

### *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.

## BREED

Rhodesian Ridgeback

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 (0.67 cm) and the jejunum measured as normal (0.48 cm) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

## SEX

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.

## AGE

11 years

### *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.

## WEIGHT

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### *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.

## INTERPRETED BY

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### *Other*

The right auricle and pericardium were visualized and were unremarkable. No obvious pathology is visualized. If cardiac function evaluation is desired a full echocardiogram is warranted.

## ULTRASONOGRAPHIC FINDINGS

### IMAGING PERFORMED BY

Loetitia Saint-Jacques,  
LVT

### Primary Findings

- Hyper- and hypoechoic nodule visualized within the spleen – The appearance of the hyperechoic nodule trends toward a benign lesion. The cranial “moth-eaten” hypoechoic nodule could be benign (hyperplasia, hematoma, regenerative nodule, etc.) or neoplastic (hemangiosarcoma, hemangioma, LMA, etc.).
- Heterogenous hypoechoic liver with a hypoechoic nodule - These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia. The appearance of the hypoechoic nodule trends toward a benign lesion, although underlying neoplasia cannot be ruled out.

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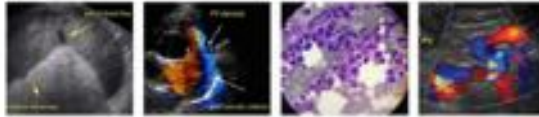
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## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a hypoechoic nodule visualized in the cranial aspect of the spleen. Consider a fine-needle aspirate of this lesion, as it could represent a benign or neoplastic process.

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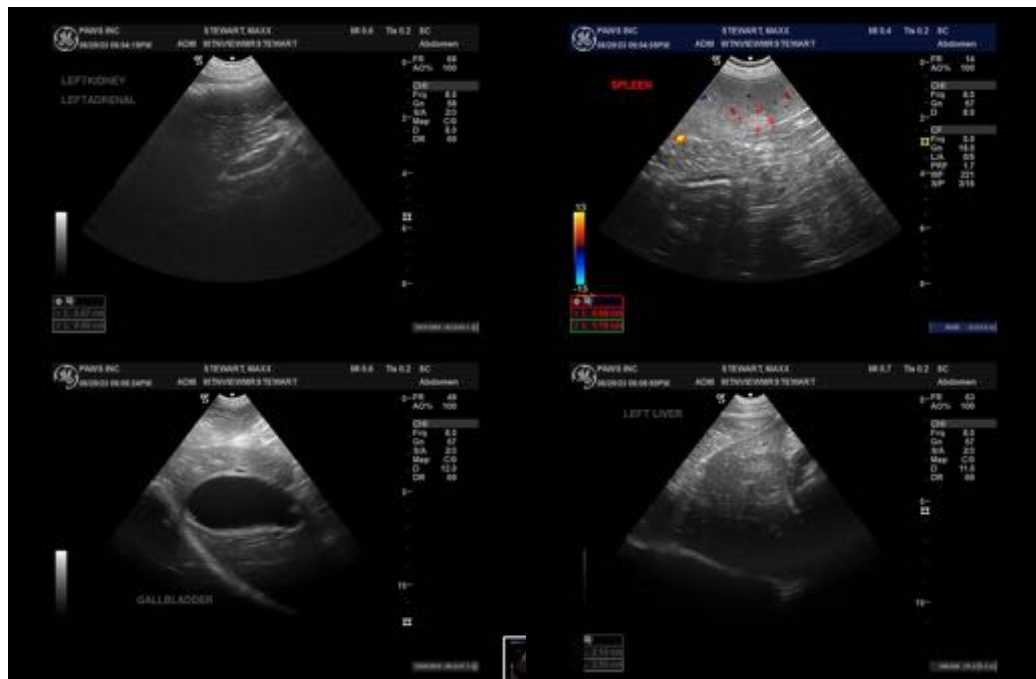
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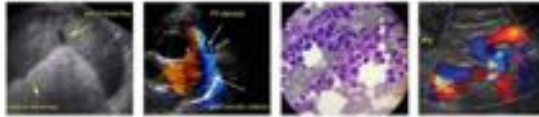
The liver appears heterogenous and hypoechoic. This is a nonspecific finding. A small hypoechoic nodule is visualized, but this is an unlikely source for the liver enzyme elevation reported. The gallbladder appears relatively normal with no evidence of obstructive disease. Findings are most consistent with a primary hepatopathy. Consider the following:

- Consider close evaluation of history for possible toxic changes examine medications, diet, dietary indiscretion etc.
- Consider PCR on urine/serum for leptospirosis (if not on antibiotics)/serology if recent antibiotic history.
- If not already done, consider pre and post prandial bile acids to evaluate liver function.
- If the ALP is significantly elevated relative to the ALT and symptoms consistent with Cushing's are present, consider adrenal function testing (ACTH stim)
- Consider Fine needle aspirate if round cell neoplasia is on your differentia list (25 g needle, normal coags)
- If no response to supportive care (Denamarin, fluids, antibiotics, +/- ursodiol etc.) Consider liver biopsy with samples obtained for histopathology, culture, and copper levels.

In the meantime, recommend treatment for acute liver injury with fluids, antibiotics, Ursodiol, Denamarin, etc. If there is no response to therapy, consider liver biopsy for histopathology, cultures and copper quantitation (provided coagulation parameters are normal).

Recommend three-view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.





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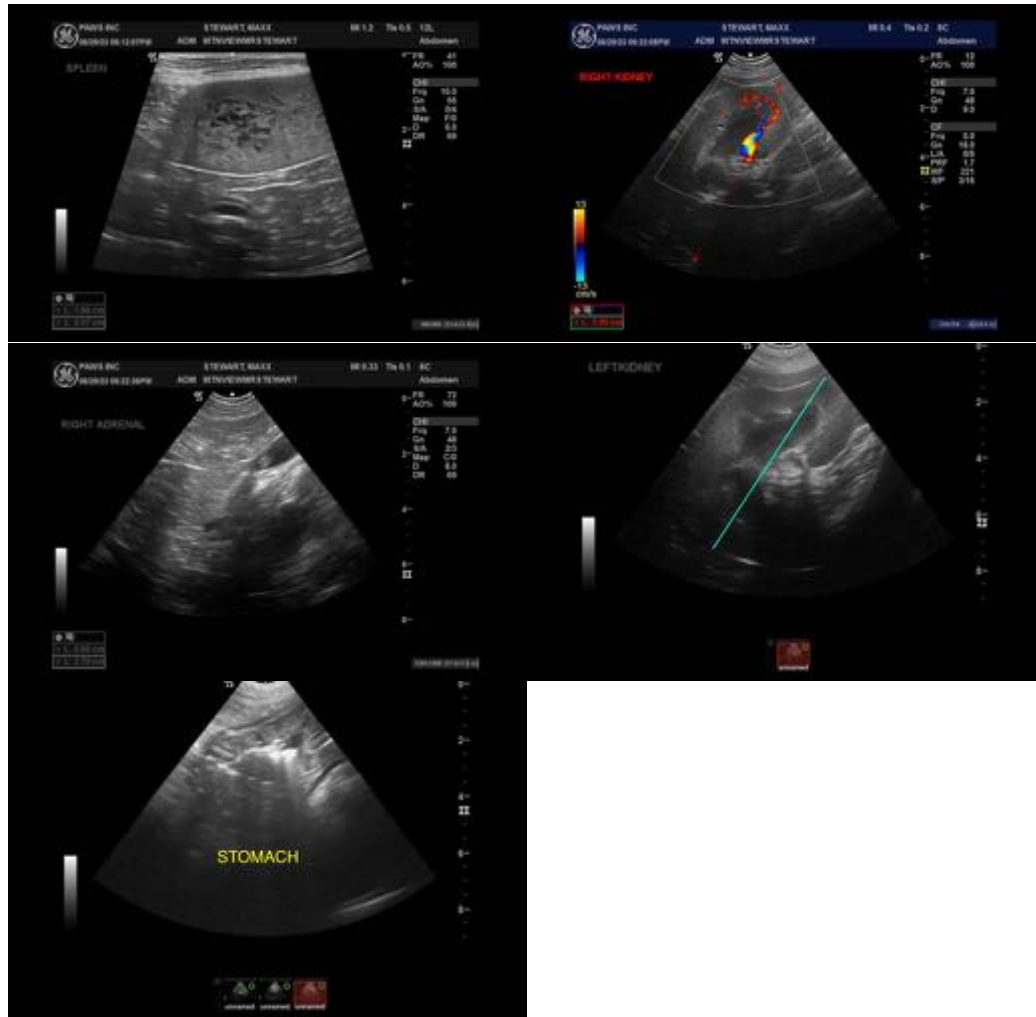
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small animal Internal Medicine)  
[info@SonoPath.com](mailto:info@SonoPath.com)