



PATIENT

Mika Naguit

SPECIES

Canine

BREED

Shih Tzu

SEX

Spayed Female

AGE

8 Years

WEIGHT

8.6 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Gagemount Animal
 Hospital

REFERRING VET

Dr. Worrell

INVOICE

74940

DATE

5/5/26

PRESENTING CLINICAL SIGNS

PE - normal eye exam, ears normal, neuro - no obvious CN deficits but noted videos of seizure activity at home. Most recent event appears to be a mild focal seizure. No meds. US to assess cause of elevated liver enzymes.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly distended with anechoic urine. The Bladder wall is slightly prominent and thickened, measuring at 0.48 cm, likely due to lack of urine distention. Full evaluation of the urinary bladder is limited due to lack of urine distention.

The left kidney has a normal shape and size (3.93 cm). Overall echogenicity is normal 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.

The right kidney has a normal shape and size (4.34 cm). Overall echogenicity is normal 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.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.87 cm at the cranial pole and 0.55 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 1.16 cm at the cranial pole and 0.56 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 normal in size but irregular in shape measuring 0.99 cm in width at the level of the hilus. blood flow through the hilus and splenic parenchyma appears normal. There is a hypoechoic cystic/cavitated mass effect visualized towards the cranial aspect of the spleen measuring 1.43 cm x 1.54 cm, and a poorly defined hypoechoic nodule towards the caudal aspect of the spleen measuring 0.91 cm x 0.63 cm.

Liver

The liver is subjectively normal in size, and 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. No focal nodules or cystic lesions are observed.

The gall bladder is significantly distended with anechoic fluid. The wall of the gall bladder is not thickened and has a smooth mucosal surface. The bile duct is not clearly visualized.



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Gastrointestinal

The stomach contains gas and mild shadowing ingesta. 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. Duodenum wall measures 0.36 cm. Jejunum wall measures 0.33 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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 area of 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

- Mildly heterogeneous liver – 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.
- Large, hypoechoic/cavitated nodule in the spleen as well as a smaller hypoechoic nodule – There are several, non-cavitated, hypoechoic splenic nodules visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis. The somewhat cystic/cavitated appearance increases concern for possible neoplastic lesion.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No focal lesions are visualized associated with the liver to explain the elevation in liver enzymes reported. Visualization of the cranial abdomen is somewhat limited due to interference from gas in the stomach, as well as anatomic limitations with a tense patient. The gallbladder is large with no significant wall changes or surrounding inflammation. The region of the bile duct is not clearly visualized.

Consider the following:

- Consider screening for Leptospirosis if clinically appropriate.
- If a safe window for sampling is available, consider a fine needle aspirate of the liver.
- You could consider empirical therapy for acute liver injury with a course of Ursodiol, Denamarin, and antibiotics.



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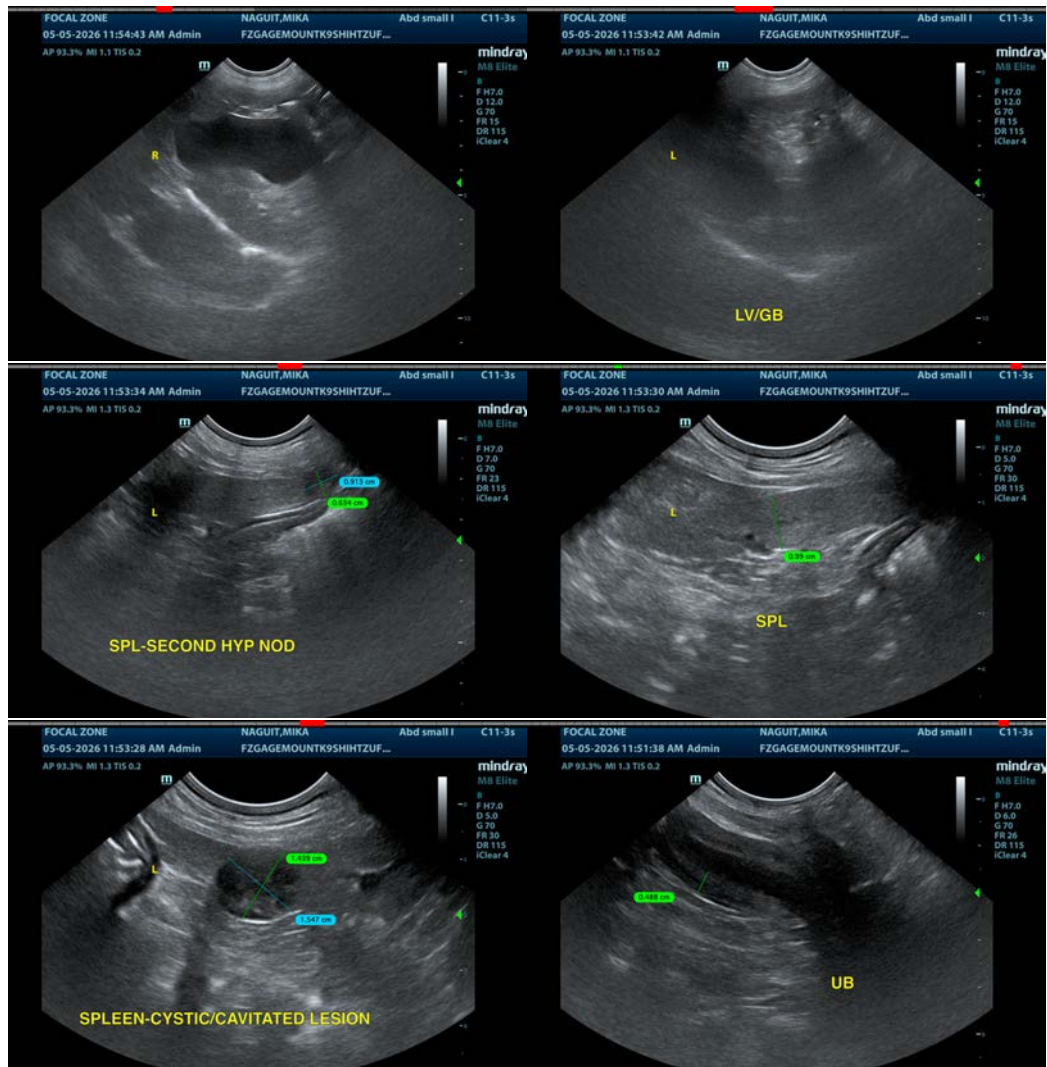
5/5/26

If liver enzyme elevations are persistent, consider repeat imaging with sedation to further evaluate the parenchyma and try to better evaluate the bile duct for progressive dilation. In some individuals a biopsy of the liver may be necessary (samples for histopathology, culture and copper levels) as well as advanced imaging (contrast CT scan) if biliary disease is suspected.

There is a large, hypochoic, cavitated nodule in the cranial aspect of the spleen, and a smaller hypochoic nodule. These could represent benign or neoplastic lesions, although the cavitated nature of the cranial lesion is somewhat concerning. Consider splenectomy for both diagnostic and therapeutic purposes, ideally once the patient is feeling better. If surgery is pursued, you could consider liver biopsy at the same time.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement (disregard if this has already been done).

*Recommend sedation for subsequent imaging in efforts to relax the patient and obtain optimal images.





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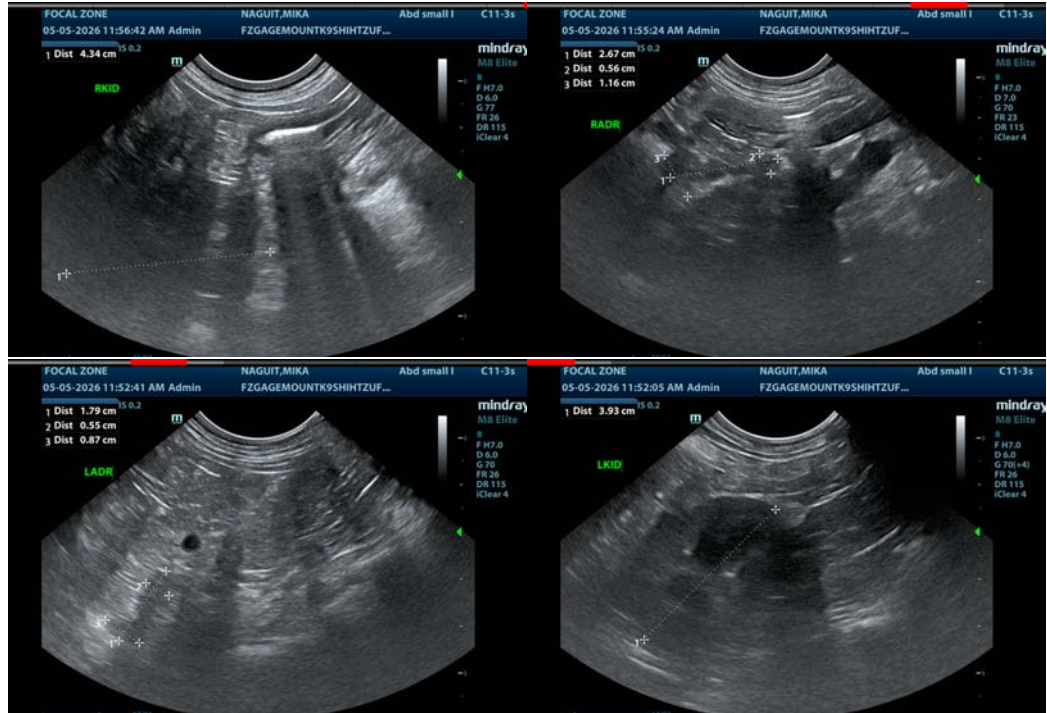
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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