


PATIENT PRESENTING CLINICAL SIGNS

Holly Storbeck

Oct. 3/22 - presented with possibility of having had a seizure on Oct. 1/22 with no history of having them. Oct. 3/22 - bloodwork showed increased liver values but not elevated high enough to have triggered a seizure. Oct. 18/22 - started on liver support (Denamarin) for 30 days with recheck bloodwork scheduled for 30 days post. Dec. 2/22 - follow-up bloodwork shows ALT and ALKP significantly elevated since Oct. 3/22 results, despite liver supplementation on Denamarin Advanced for ~50 days. Dec. 5/22 - Holly had another small seizure. Will be started on Levetiracem within the week.

SPECIES

Canine

Most recent liver values- ALT 573, ALP 312

BREED

Border collie mix

SEX

Female, spayed

AGE

11 Yrs.

WEIGHT

21.7 kg.

INTERPRETED BY

Andrea Nicastro, DVM,
 Diplomate ACVIM
 (Small Animal Internal
 Medicine)

IMAGING PERFORMED BY

Kelly Reschny

HOSPITAL NAME

Stoney Ridge AH

REFERRING VET

Brooks VH

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN
Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is distended. A scant amount of suspended echogenic debris is observed within the lumen. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 1-2 cm, are normal.

The left kidney is normal size (5.77 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (6.50 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.55 cm at cranial pole) (0.67 cm at caudal pole) (2.06 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is normal size (1.45 cm at cranial pole) (0.56 cm at caudal pole) (1.88 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (2.37 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A few myelolipomas are observed in the region of the hilus. Splenic vasculature is normal.

Liver

The liver is subjectively enlarged. The parenchyma is isoechoic relative to the spleen and diffusely heterogeneous in appearance. A 3.6 cm irregular isoechoic mass is observed at the tip of the left lateral lobe. The lesion causes capsular expansion. The remaining hepatic margins are curvilinear. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic

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lymphadenopathy observed. The gallbladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal.

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Gastrointestinal

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

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Pancreas

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

SEX

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Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

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Other

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

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Andrea Nicastro, DVM,
Diplomate ACVIM
(*Small Animal Internal
Medicine*)

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- Hepatic mass at the tip of the left lateral lobe. Neoplasia (i.e., adenoma, adenocarcinoma) is suspected. However, a benign process (i.e., regenerative nodular hyperplasia) cannot be completely excluded. The diffuse hepatic parenchymal changes could be consistent with an inflammatory hepatopathy, infiltrative neoplasia, hepatotoxicosis (i.e., copper), other hepatopathy.

**IMAGING
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Kelly Reschny

Secondary Findings:

- Minor, bilateral, age-related renal changes.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- Consider hepatic tissue sampling (i.e., fine needle aspirates with particular attention to the mass on the left lateral lobe) or biopsies (i.e., laparoscopic or surgical).
- In the meantime, supportive care and empirical treatment for bacterial cholangiohepatitis (i.e., broad spectrum antibiotics, hepatic antioxidants) is recommended.

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- Also consider Leptospirosis testing (i.e., blood and urine PCR, serology) as well as pre- and post-prandial serum bile acids to assess for evidence of hepatic encephalopathy, which could be a cause for the patient's seizure episodes. A blood ammonia level may also be useful.

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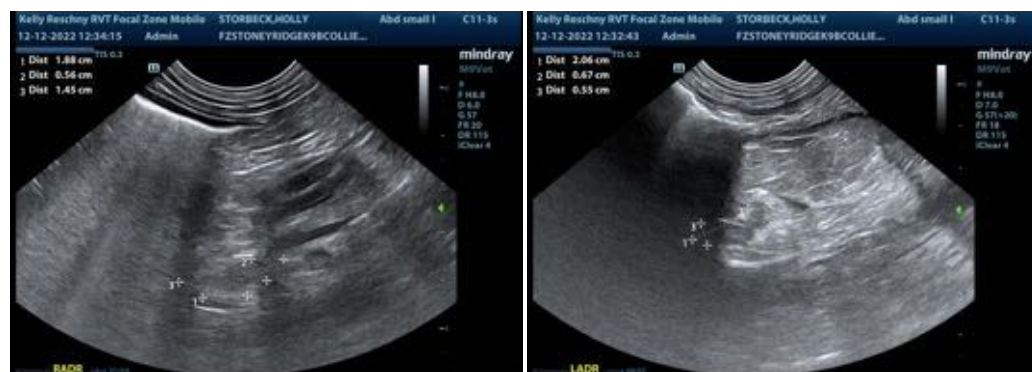
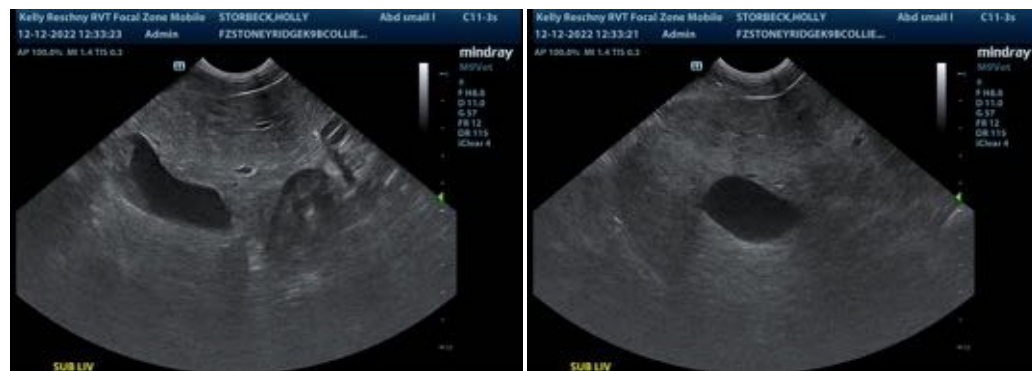
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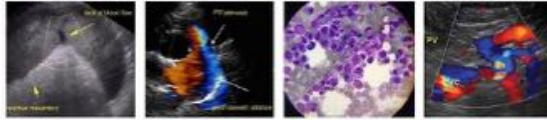


The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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info@SonoPath.com

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