



PATIENT

Pepper Bogaert

SPECIES

Canine

BREED

Lab

SEX

Neutered Male

AGE

11 years

WEIGHT

40 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Kelly Reschny

HOSPITAL NAME

New Hamburg VC

REFERRING VET

Dr. Von Hausen

INVOICE

11470

DATE

8.22.22

PRESENTING CLINICAL SIGNS

History: chronic waxing and waning hyporexia since diet change, chronic intermittent diarrhea
Abnormal PE/Chem/CBC/UA Results: SDMA 16, Urea 12.8, ALT 197, ALP 350, lipase 1821

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** and visible portion of the pelvic urethra are normal for the degree of luminal distension. The urine is anechoic with no evidence of debris. Cystic calculi and discrete masses are not observed. The region of the trigone is normal.

The region of the **prostate** is not visualized due to its pelvic location.

The **left kidney** is normal size (6.77 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

The **right kidney** is normal size (6.24 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The **left adrenal gland** is mildly enlarged (1.01 cm at cranial pole) (0.95 cm at caudal pole) (3.29 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 (1.73 cm at cranial pole) (0.51 cm at caudal pole) (2.26 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 (2.21 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

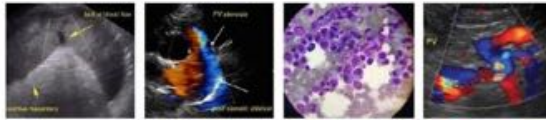
Liver

The **liver** is normal to slightly small in size with irregular peripheral contours. The parenchyma is hypoechoic relative to the spleen and mottled, bordering on a nodular appearance. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The **gall bladder** 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/not seen.

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. Discrete masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.



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Pancreas

The right limb of the **pancreas** is visible and normal in size with normal peripheral contours. The parenchyma is slightly hypoechoic relative to surrounding omental fat and subtly mottled in appearance. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated.

Free Abdomen

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

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The hepatic parenchymal changes are suggestive of a chronic hepatopathy (i.e., inflammatory disease, fibrosis, other). However, a more benign process (i.e., regenerative nodular hyperplasia) cannot be completely excluded.

Secondary Findings

- Bilateral, mild degenerative renal changes.
- The left adrenomegaly may be a normal variant for this large-breed patient or may represent early hyperplastic change.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Consider pre- and postprandial serum bile acids to assess hepatic function. If values are elevated, consider laparoscopic or surgical liver biopsies. If pursued, aerobic and anaerobic bile cultures would also be recommended, along with acquisition of additional hepatic tissue samples for potential copper quantitation.

If serum bile acids are normal, consider further work-up, which could include the following:

1. Malabsorption panel including serum cobalamin and folate, TLI and PLI
2. A fecal evaluation for ova and Giardia is recommended
3. Limited antigen diet trial, if not already performed
4. A resting cortisol level can also be considered. However, in light of the mild left adrenomegaly, hypoadrenocorticism is considered less likely.
5. Also consider empirical treatment for small intestinal bacterial overgrowth with a full-week course of Tylosin, along with supplementation with a probiotic with a high colony count (i.e., Provable Forte or Visbiome).
6. Ultimately, GI biopsies (i.e., endoscopic or surgical) may be necessary to get a definitive diagnosis. Thoracic radiographs should be performed prior to any anesthetic event.



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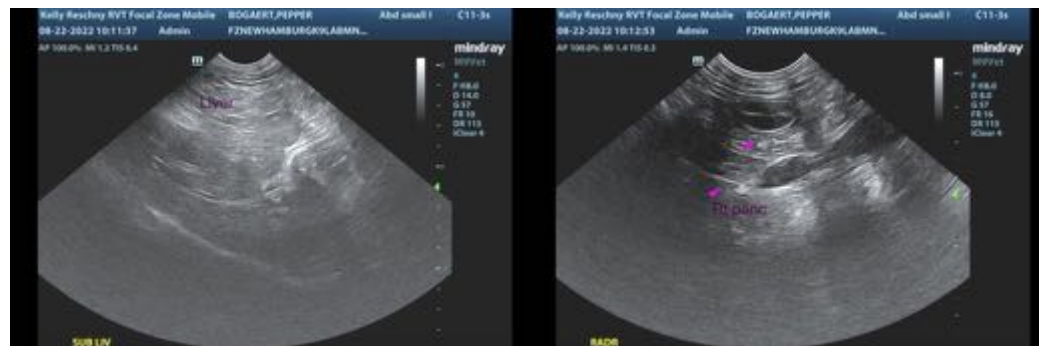
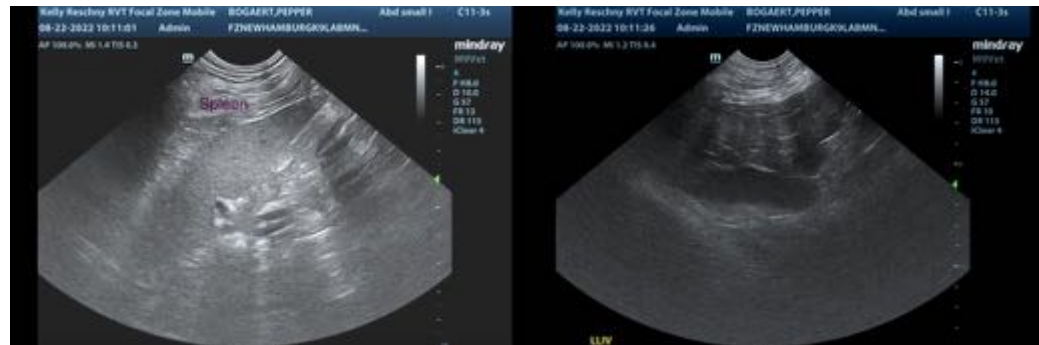
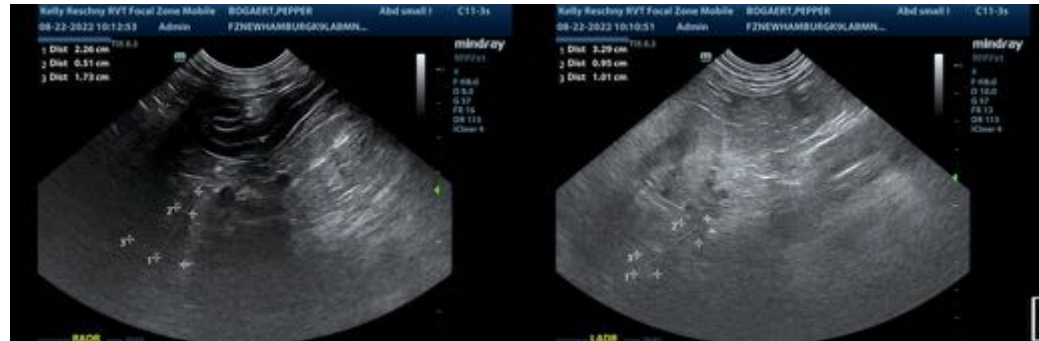
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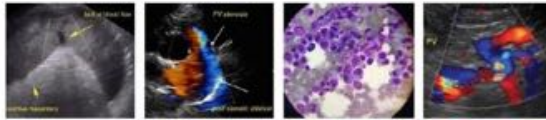
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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