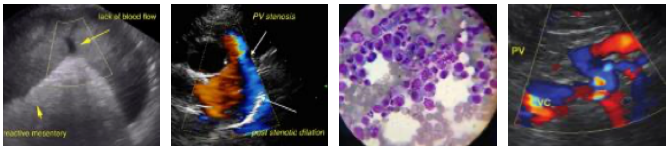


SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Emmit Steblyk

SPECIES
Canine

BREED
Mini Schnauzer

SEX
Male, neutered

AGE
9 Yrs.

WEIGHT
7.2 kg.

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

IMAGING PERFORMED BY
Dr. Sarah Barthelemy

HOSPITAL NAME
Signal Hill AC

REFERRING VET
Dr. Leboldus

INVOICE
14562

DATE
2/7/23

PRESENTING CLINICAL SIGNS

History: Historically well controlled diabetes mellitus. In last few days has become dull/lethargic, tachycardia with possible mild tachypnea. Eating normally still. Hx of previous urinary stones and did have cystotomy and has been on S/O diet since then.
Abnormal PE/Chem/CBC/UA Results: Elevated ALT 654, ALP 675, GGT 51. Hypercholesterolemia. Proteinuria. Chest rads show mild bronchointerstitial pattern with no obvious cardiac changes.

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 moderately distended. A small amount of gravity-dependent mineralized sand is observed within the lumen. No distinct cystic calculi are observed. The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is normal in size (0.95 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal size (4.59 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. Several non-obstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

The right kidney is normal size (4.74 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. Several non-obstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is upper limits of normal size (0.51 cm at cranial pole) (0.54 cm at caudal pole); 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.

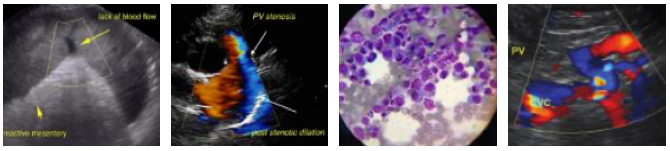
The right adrenal gland is normal size (0.63 cm at cranial pole) (0.44 cm at caudal pole); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (0.60 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 prominent to enlarged with swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and subtly mottled in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is



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moderately distended. The wall is thin and smooth. A moderate to large amount of aggregated, echogenic partially dependent sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is moderately distended with ingesta, consistent with a post prandial presentation. In addition, a 1.65 cm rectangular hypoechoic non-shadowing structure is also observed within the lumen. 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 segmentally dilated with chyme. 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. The lumen of the descending colon contains shadowing fecal material. No obstructive disease is noted.

Pancreas

A portion of the pancreas is obscured by the gastric distention. In the visualized portion (left limb), the pancreas is prominent in size with minimal deviation from the normal peripheral contours. The parenchyma is slightly hypoechoic relative to surrounding omental fat and mottled in appearance. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated.

Free Abdomen

There is no obvious evidence of free fluid. A 1.31 cm lymph node is observed at the aortic trifurcation. The node is normal in shape and echogenicity.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

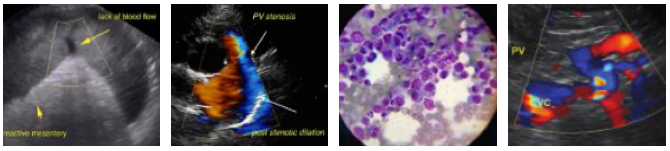
- Non-specific diffuse hepatopathy. Differentials include inflammatory disease (i.e., bacterial cholangiohepatitis, chronic hepatitis), Leptospirosis, hepatotoxicosis (i.e., copper, other), vacuolar hepatopathy, regenerative nodular hyperplasia, other hepatopathy or some combination of hepatopathies.
- The gallbladder sludge could be consistent with an emerging mucocele or cholestasis.
- The hypoechoic structure in the gastric lumen may represent normal ingesta (i.e., potato) or foreign material (less likely).

Secondary Findings:

- Bilateral chronic renal changes with non-obstructive nephrolithiasis.
- Urinary bladder sand.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The prominent caudal abdominal lymph node is likely reactive.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Regarding the elevated liver enzymes, consider the following:



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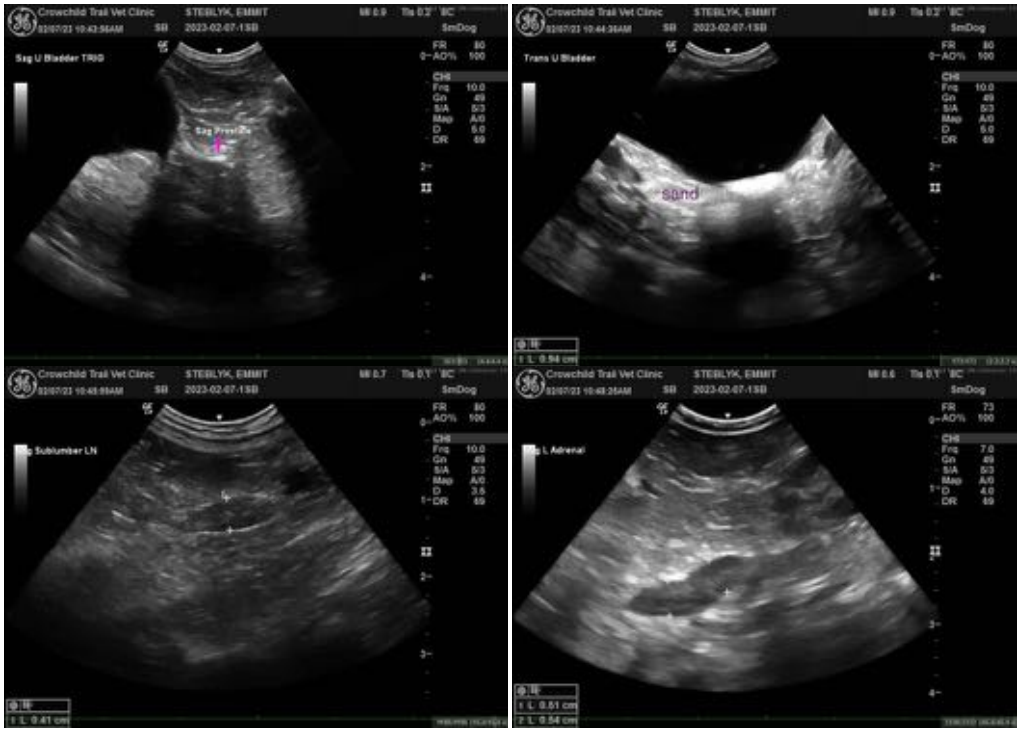
  - Pre and post prandial serum bile acids.
  - Leptospirosis testing (i.e., blood and urine PCR, serology).
  - Hepatic tissue sampling (i.e., fine needle aspirate or biopsies). If biopsies are pursued, aerobic and anaerobic bile cultures are recommended along with hepatic copper quantitation.
- Regarding the gallbladder changes, consider initiation of Ursodiol therapy with serial sonographic monitoring (i.e., every 2-3 months) to assess for progression to a fully formed mucocele.
- Regarding the hypoechoic structure in the gastric lumen, a repeat ultrasound is recommended when the patient is fasted.
- Given the proteinuria, a urine culture and sensitivity and UPC (if proteinuria is present in the absence of infection) are recommended.
- Given the tachycardia, consider thoracic radiographs, ECG, baseline blood pressure measurement +/- echocardiogram.



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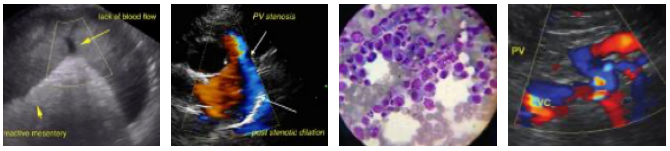

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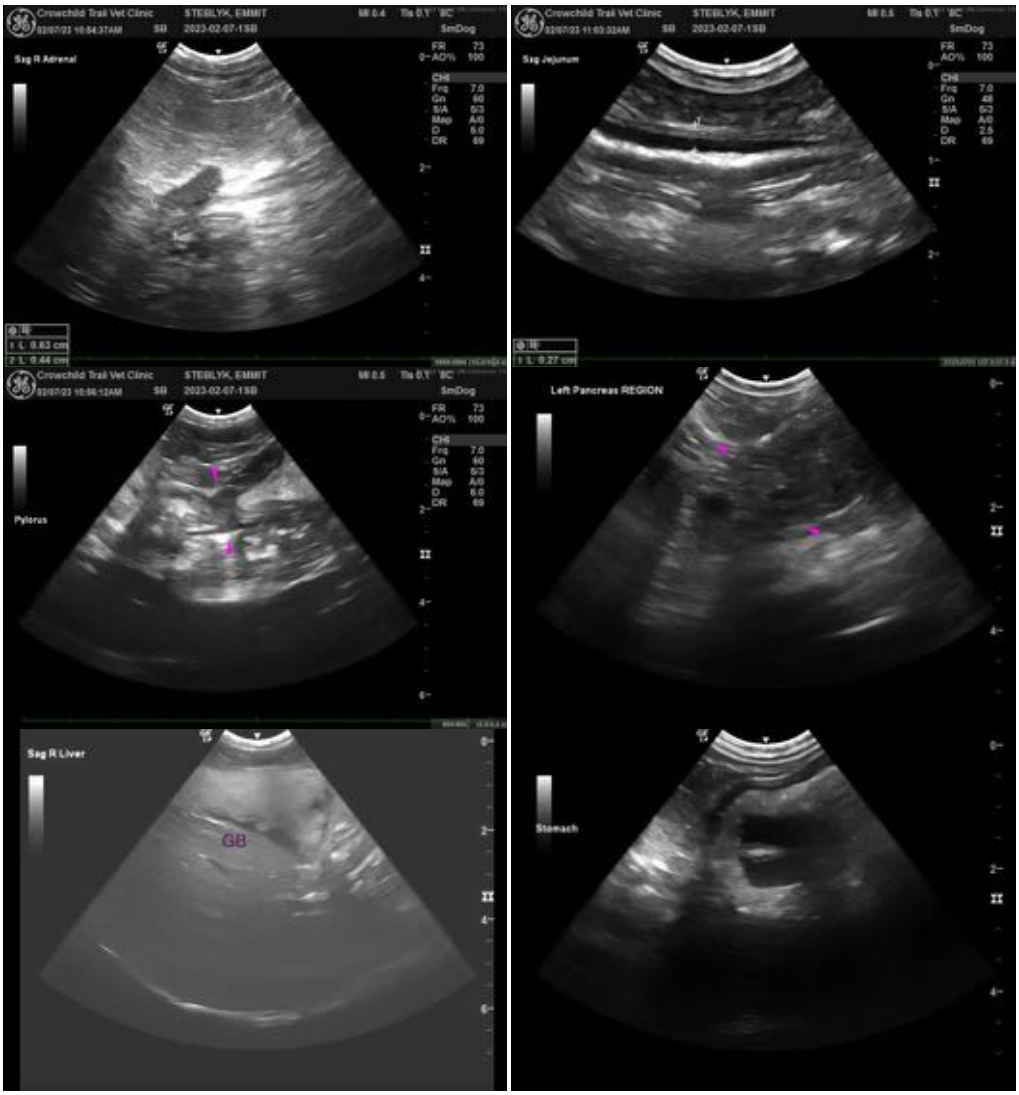

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com