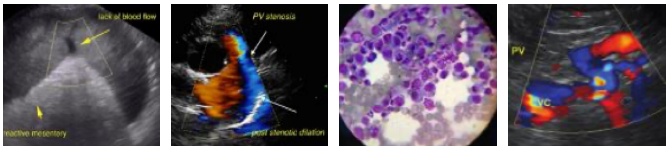
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Buddy Wilson

SPECIES
Canine

BREED
Miniature Pinscher

SEX
Male, netuered

AGE
9 Yrs.

WEIGHT
19 lbs.

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

IMAGING PERFORMED BY
Dr. Fowler

HOSPITAL NAME
Portland Veterinary Wellness Center

REFERRING VET
Dr. Fowler

INVOICE
15084

DATE
6/26/23

PRESENTING CLINICAL SIGNS

History: Buddy has a history of poorly regulated DM and was diagnosed June 2022 with concurrent pancreatitis and DKA. P found to have a slab fracture at a BG curve recheck and removal was recommended, started on carprofen and gaba. P appetite the week leading up to dental was very decreased. O reports P tends to be picky but he didn't want to eat any food offered. Was started on cerenia 3 days prior to dental. P presented for surgery after increasing insulin dose - that morning p was given all insulin (7 U vetsulin instead of 3U fasted). Pre-op labs showed mild non-regen anemia, confirmed with in house PCV. P glucose dropped to 60 during stay (fed small amount of food that AM). unsure if pertinent: in 2022 an AUS was performed that confirmed mild acute or chronic pancreatitis - Left adrenal gland measures 5.2 h and 4.9mm cranial pole, the right adrenal gland was 4.6mm h both with normal size and shape. There was mild cystic mucinous hyperplasia and moderate hepatomegaly. P was seen at ER first week of June due to diarrhea and PCV then was 45%. 6/6/23 UA was negative for ketones and urine culture negative. Appetite improved with mirtazapine. P still BAR PU/PD PCV recheck today 3 tubes approx 32%, one tube 25%.
Abnormal PE/Chem/CBC/UA Results: BCS 8-9/9 BAR mildly regenerative anemia thrombocytosis hyperglycemia elevated liver enzymes glucosuria

Hematocrit 19.7% mildly regenerative. ALP >2,000, ALT 359, GGT 23, USG 1.037, 2+ proteinuria, 3+ glycosuria, no ketonuria, inactive sediment. Urine culture negative, 4DX negative.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. Luminal contents are anechoic. No cystic calculi are observed. The region of the trigone is normal.

The prostate is not definitively visualized due to its pelvic location.

The left kidney is subjectively normal size with a normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. A thin hyperechoic medullary band is observed at the corticomedullary junction. Mild pyelectasia is present (0.24 cm in the transverse plane). There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

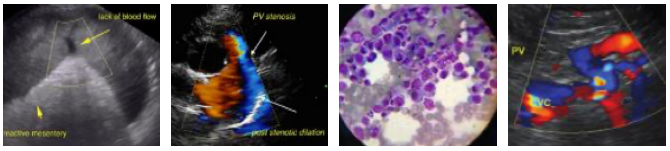
The right kidney is subjectively normal size (4.45 cm in length) with a normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. A thin hyperechoic medullary band is observed at the corticomedullary junction. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The caudal pole of the left adrenal gland is visualized and is mildly enlarged (0.58 cm in width) with a normal shape, glandular echogenicity and detail. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is not definitively visualized in the available images. However, no obvious abnormalities are observed in this region.

Spleen



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In the visualized portion of the spleen, the organ appears normal in size with normal curvilinear peripheral contours. The parenchyma is of appropriate echogenicity and echotexture and is homogenous in appearance. Splenic vasculature is normal with no evidence of thrombosis.

Liver

The liver is subjectively prominent in size with swollen curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small to moderate amount of aggregated echogenic mostly gravity-dependent debris/sludge is observed within the lumen. 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 minimally distended with ingesta. 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.

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.

Free Abdomen

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

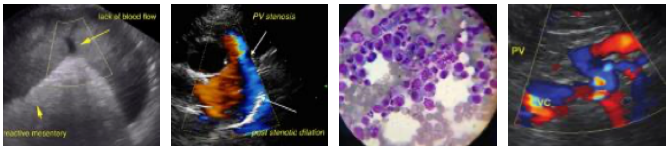
ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- Non-specific diffuse hepatopathy. Considerations include diabetic hepatopathy, regenerative nodular hyperplasia, inflammatory disease (i.e., bacterial cholangiohepatitis, chronic hepatitis), hepatotoxicosis (i.e., copper), other hepatopathy.
- Gallbladder debris/sludge- non-mucocele.

Secondary Findings:

- The bilateral renal changes are most consistent with a diabetic nephropathy. The pyelectasia may be secondary to PU/PD, pyelonephritis, age-related remodeling or some combination thereof.
- Mild left adrenomegaly.



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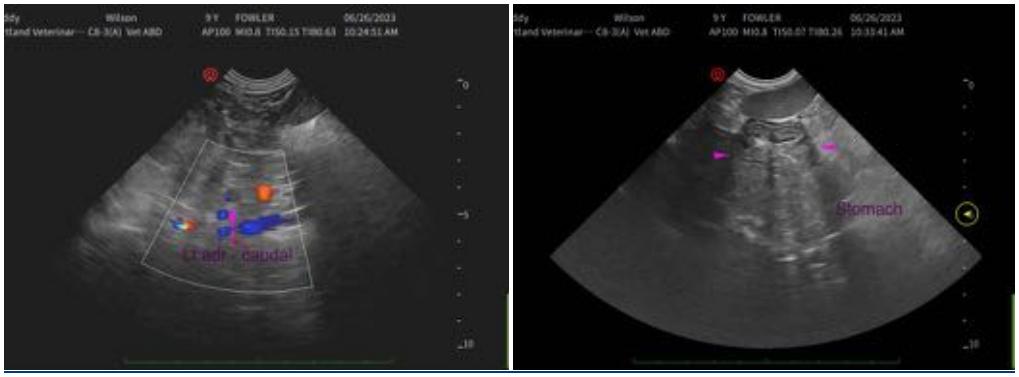
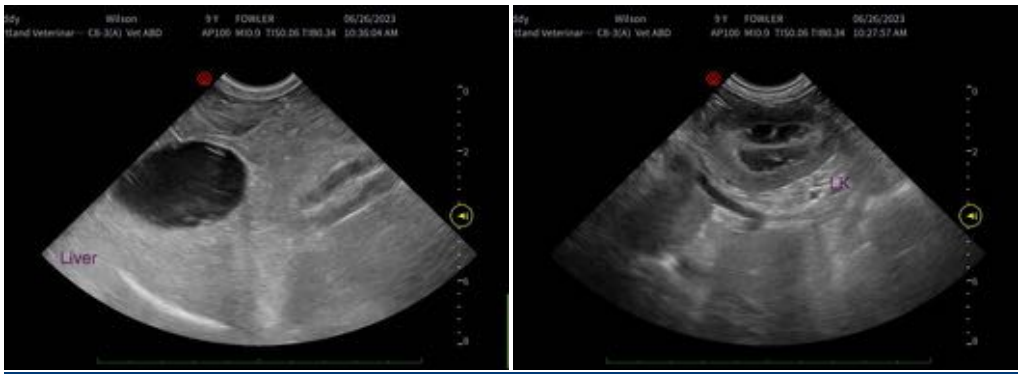
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

An obvious cause for the patient's mildly regenerative anemia is not definitively identified in this study. Differentials include blood loss (i.e., GI, thoracic, other) or hemolysis. Diagnostic considerations include the following:

1. Slide agglutination test to evaluate for autoagluttination.
2. Three-view thoracic radiographs to assess for occult disease in the chest, if not already performed.
3. A comprehensive tick panel, including PCR and serology (submission to North Carolina State University's Vector Borne Disease Diagnostic Lab) is recommended. https://cvm.ncsu.edu/research/labs/clinical-sciences/vector-borne-disease/.
4. Upper GI endoscopy with biopsies, particularly if upper GI bleeding is suspected.
5. If the above diagnostics are inconclusive, empirical treatment for immune-mediated hemolytic anemia may be warranted.

Regarding the bilateral pyelectasia, consider urine culture and sensitivity to assess for occult pyelonephritis.





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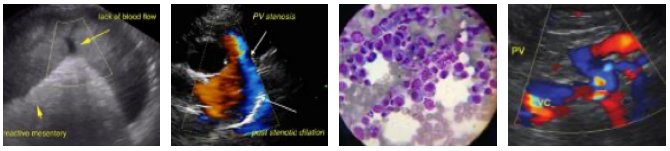

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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