


PATIENT PRESENTING CLINICAL SIGNS

Lily Eva History: -Diagnosed with Chronic Kidney disease 4/8/2022 – ALP 726, USG 1.010 with trace proteinuria, inactive sediment. Hematocrit 34.8%, non-regenerative anemia, elevated BUN and creatinine. -Seemed to be doing well after this - using natural blood, liver, and kidney cleanse since 4/8/2022 -In for tooth root abscess 11/19/2022 - decided to repeat BW – Hematocrit 36%, non-regenerative anemia, mild thrombocytosis, elevated BUN and phosphorus. ALP 964. Concerns for organ function prior to GA for dental.

SPECIES

Canine

BREED

Maltese mix

SEX

Female, spayed

AGE

7 Yrs.

WEIGHT

6.5 kg.

INTERPRETED BY

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

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Buck AH

REFERRING VET

Dr. Galbraith

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 with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The left kidney is normal size (4.75 cm in length) with a normal shape and smooth peripheral contour. The cortex is diffusely thickened and hyperechoic with pinpoint hyperechoic foci. There was moderate loss of corticomedullary distinction. A few small non-obstructive nephroliths are seen. Trace pyelectasia is present (0.21 cm in the longitudinal plane). There is no evidence of infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal size (4.19 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.50 cm at cranial pole) (0.51 cm at caudal pole) (1.50 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 (0.75 cm at cranial pole) (0.43 cm at caudal pole) (1.21 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

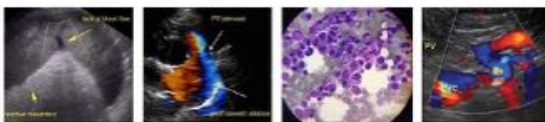
The spleen is normal in size (1.58 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is hyperechoic relative to the spleen and diffusely homogeneous 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 moderately distended. The wall is thin and smooth. Luminal contents are mostly anechoic. The cystic and common bile ducts are normal/not seen.

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11/22/22



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Gastrointestinal

Lily Eva

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.

SPECIES

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Pancreas

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Maltese mix

The pancreas is diffusely prominent in size with minimal deviation from the normal peripheral contours. The parenchyma is mildly hypoechoic relative to surrounding omental fat and slightly mottled in appearance. No distinct focal lesions are observed. The pancreatic duct is visible but not overtly dilated (0.25 cm in diameter).

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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ULTRASONOGRAPHIC FINDINGS

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- Diffuse hepatopathy. Vacuolar hepatopathy is the top differential based on the sonographic appearance of the liver. Inflammatory disease and infiltrative neoplasia are considered less likely in light of the normal ALT.
- The bilateral renal changes are most consistent with chronic interstitial nephrosis/nephritis with dystrophic mineralization.

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

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Regarding the mild azotemia, consider the following:
 1. Urine culture and sensitivity.
 2. UPC (if proteinuria is present in the absence of infection).
 3. Baseline blood pressure measurement.
- Regarding the elevated ALP, serial monitoring (i.e., every 3 months) of the liver values is recommended to assess for progression.
- If the patient is to undergo anesthesia, it would be best to avoid benzodiazepines and use opioids judiciously. IV fluid diuresis for at least 12 hours prior to anesthesia, through the procedure and for several hours post anesthesia is recommended to enhance renal perfusion. Blood pressure monitoring during the procedure is also recommended to help avoid hypotensive events, which may result in renal damage.

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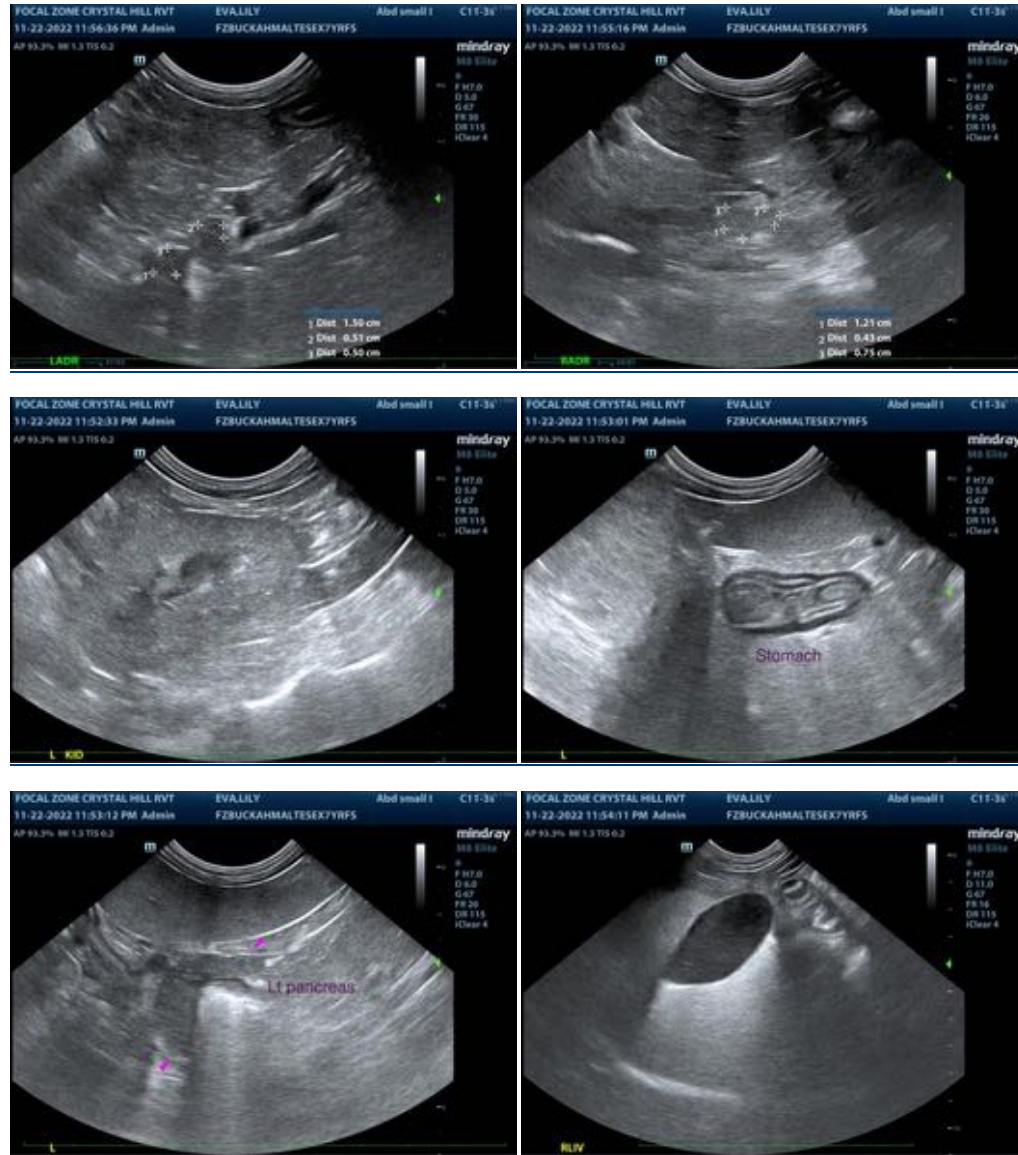
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

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