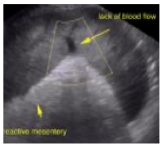
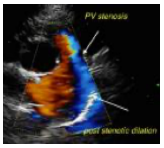
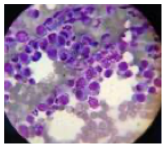
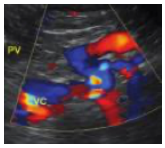
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Daisy Bihuniak

SPECIES
Canine

BREED
Yorkshire Terrier Mix

SEX
Spayed Female

AGE
11 years

WEIGHT
22.4 lbs

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

IMAGING PERFORMED BY
Kelly Vazquez

HOSPITAL NAME
Animal General on Hudson

REFERRING VET
Dr. Vivian Ng

INVOICE
11779

DATE
10.5.22

PRESENTING CLINICAL SIGNS

History: Intermittent 2/6 systolic murmur; new. Prior invoice: 10024. New azotemia, weight loss, history immature gallbladder mucocele, vacuolar hepatopathy. Current meds: Denamarin, Ursodial.

Abnormal PE/Chem/CBC/UA Results: ALP 630, BUN 107, creat. 2.9, phos. 12.6, chol 358, PSL 412, amylase 1294, triglycerides 331. Lepto (neg), resting cortisol NSF, Accuplex (neg). NSF U/A: 2+ protein, RBC, pH 6.0, USG 1.014.

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. The region of the trigone and the visible portion of the proximal urethra are normal.

The **left kidney** is normal size (5.49 cm in length); normal shape and smooth peripheral contours. The cortex is hyperechoic. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. Moderate pyelectasia is present (0.72 cm in the longitudinal plane). Pinpoint hyperechoic foci are observed within the cortex. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The **right kidney** is normal size (6.08 cm in length); normal shape and smooth peripheral contours. The cortex is hyperechoic. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. Moderate pyelectasia is present (0.59 cm in the longitudinal plane). Pinpoint hyperechoic foci are observed within the cortex. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The **left adrenal gland** is mildly enlarged (0.63 cm at cranial pole) (0.77 cm at caudal pole) (2.44 cm in length); normal shape and smooth peripheral contours. The parenchyma at the cranial pole is mildly hyperechoic, and hypoechoic at the caudal pole. Pinpoint hyperechoic to mineralized foci are observed throughout the gland. There is some loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature are normal.

The **right adrenal gland** is mildly enlarged (0.68 cm at cranial pole) (0.90 cm at caudal pole) (2.60 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 (1.03 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. One to two small, myelolipomas are visualized. Splenic vasculature is normal.

Liver

The **liver** is subjectively enlarged with swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and subtly heterogenous in appearance, with one-two small, ill-defined hyperechoic nodules. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The **gall bladder** lumen is distended. The wall is thin and smooth. A few polypoid-like lesions are arising from the luminal surface. A moderate amount of aggregated, echogenic, partially dependent debris/sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

A 1.60 x 1.47 irregular focal tissue structure is observed within the lumen and appears to be arising from the greater curvature. The remaining gastric wall is normal in thickness with a normal layering pattern. A 1.31 cm shadowing structure is observed within the lumen. The pyloric outflow tract appears patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. The colonic wall is normal. There is no evidence of an obstructive pattern.

Pancreas

The left limb is prominent to mildly enlarged, with irregular peripheral contours. The parenchyma is mildly hypoechoic relative to surrounding omental fat and mottled in appearance, with ill-defined hyperechoic areas. The pancreatic duct is not overtly dilated. There is no evidence of peripancreatic effusion.

Free Abdomen

There is no evidence of free fluid. The abdominal **lymph nodes** are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Bilateral degenerative renal changes. The pyelectasia may be secondary to pyelonephritis, age-related remodeling or some combination thereof. The renal changes appear to have progressed since the previous sonogram.
- The gall bladder sludge could be consistent with a developing mucocele. However, the appearance of the sludge has subjectively improved since the previous sonogram.
- The focal tissue structure that is arising from the gastric wall, could be consistent with a tumor, polyp, other inflammatory focus, hypertrophy, other.
- The shadowing structure within the gastric lumen may represent foreign material or medication (if the size corresponds with the patient's orally administered pills. It appears nonobstructive at this time.

Secondary Findings

- Mild bilateral adrenomegaly. This is a new finding.
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely. Changes are similar to the previous sonogram.
- The pancreatic changes are suggestive of chronic pancreatitis with age-related remodeling, +/- fibrosis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Regarding the 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

4. Fluid therapy (i.e., subcutaneous or IV), depending on the patient's clinical status.
5. Transition to a prescription renal diet if the patient will tolerate it

Regarding the hepatobiliary changes, continuation of the Denamarin and Ursodiol is recommended.

Regarding the lesion within the gastric lumen, consider the following:

1. Three-view thoracic radiographs to assess for pulmonary metastatic disease
2. An upper GI endoscopy with biopsies or gastrotomy with removal of the mass and submission for histopathology can be considered if the patient's renal status can be stabilized.

Regarding the pancreatic changes and weight loss, consider a malabsorption panel including serum cobalamin and folate, TLI and PLI.

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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