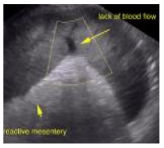
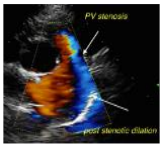
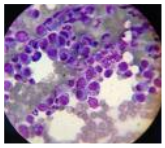
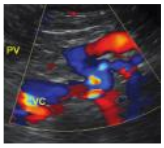
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™





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

PATIENT

Annabelle Sarto

SPECIES

Canine

BREED

Toy Poodle

SEX

Spayed Female

AGE

15 years

WEIGHT

14.3 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. William Freedman

INVOICE

11482

DATE

8.24.22

PRESENTING CLINICAL SIGNS

History: Grade 3/4 systolic murmur - previous echo 12/9/2019. History of Cushing's had 1 seizure, hypothyroid. Recently treated for UTI, had hypoglycemia. Current meds: Apoquel/Kepra/thyro-tabs/trilostane.

Abnormal PE/Chem/CBC/UA Results: Alk. Phos. 280, glucose 67. U/A: high WBC, high RBC, USG 1.019.

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 (4.09 cm in length); with a slightly irregular shape. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. Pinpoint hyperechoic foci are observed within the cortex. Several, nonobstructive nephroliths are visualized. There is no evidence of pyelectasia or hydroureter. Renal vasculature is normal.

The **right kidney** is normal size (5.18 cm in length); with a normal shape and mostly smooth peripheral contours. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. At least two small cortical cysts are seen. Pinpoint hyperechoic foci are observed within the cortex. Several, nonobstructive nephroliths are visualized. There is no evidence of pyelectasia or hydroureter. Renal vasculature is normal.

Adrenal Glands

The **left adrenal gland** is mildly enlarged (0.70 cm at cranial pole) (0.58 cm at caudal pole) (1.82 cm in length); normal shape; homogenous parenchyma. 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 enlarged (1.05 cm at cranial pole) (1.5 cm at caudal pole) (2.75 cm in length); with an irregular shape. The parenchyma is heterogenous with loss of glandular detail. A 0.57 x 0.47 cm hypoechoic nodule is observed at the cranial aspect. Surrounding vasculature appears normal.

Spleen

The **spleen** is normal in size (1.30 cm in width at the level of the hilus) with a normal capsular contour. A light micronodular pattern is observed throughout the organ. A few ill-defined myelolipomas are observed in the region of the hilus. Splenic vasculature is normal.

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** is moderately distended. The wall is normal in thickness. A few polypoid-like lesions are arising from the luminal surface. A moderate amount of aggregated, echogenic, +/- mineralized debris/sludge, mostly gravity dependent, 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 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. There is no evidence of an obstructive pattern.

Pancreas

The base and right limb **pancreas** are prominent in size with minimal deviation from the normal peripheral contours. The parenchyma is hyperechoic relative to surrounding omental fat and mottled in appearance with several, small, hypoechoic nodules/areas throughout the parenchyma. The pancreatic duct is not overtly dilated.

Free Abdomen

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

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- 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.
- Gall bladder debris/sludge – non-mucocele
- The pancreatic changes are consistent with age-related remodeling/fibrosis. Concurrent mild chronic pancreatitis is also possible, particularly if this diagnosis fits with the patient's clinical history.

Secondary Findings

- The splenic parenchymal changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis, splenitis or antigenic stimulation with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).
- The bilateral adrenomegaly (more pronounced on the right side) is consistent with the patient's previous diagnosis of pituitary-dependent hyperadrenocorticism.
- Bilateral degenerative renal changes with dystrophic mineralization and nonobstructive nephrolithiasis

*An obvious cause for the patient's hypoglycemia is not identified in this study. Considerations include insulinoma, hepatic dysfunction, sepsis (less likely), paraneoplastic syndrome, other.

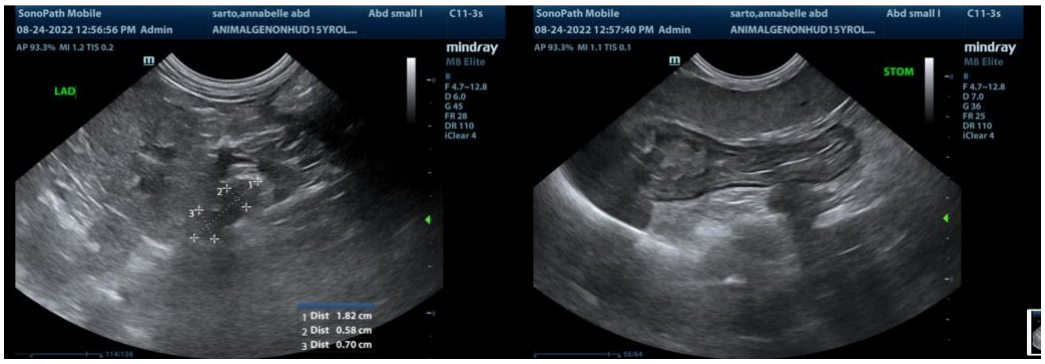
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

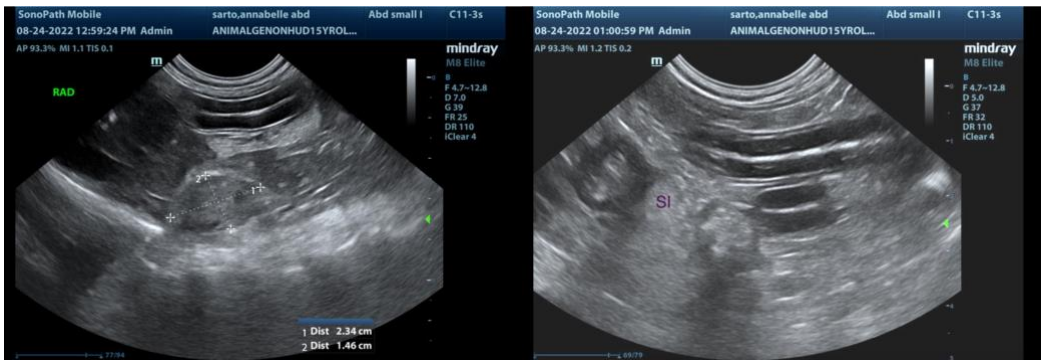
Regarding the hypoglycemia, consider the following:

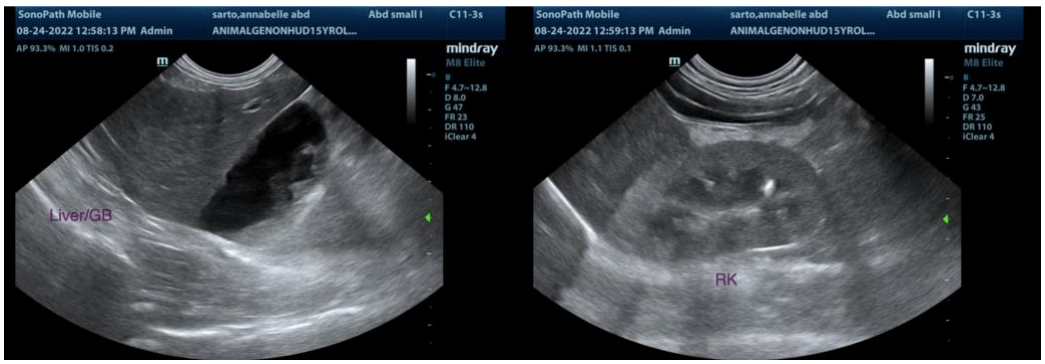
- An insulin: glucose ratio is recommended.
- Pre-and postprandial serum bile acids are also recommended to assess hepatic function.

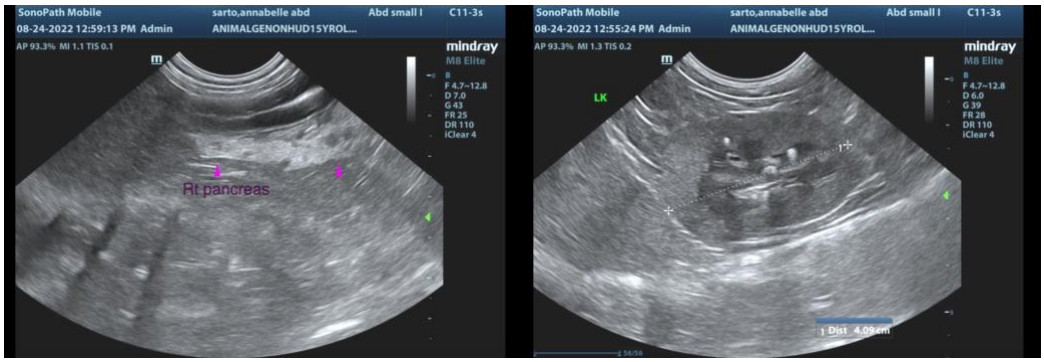
- Three-view thoracic radiographs are recommended to assess for occult neoplasia in the chest.

Regarding the recent urinary tract infection, consider a urine culture and sensitivity if clinical signs have not resolved.









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