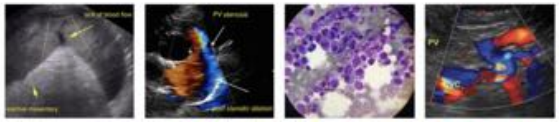


PATIENT

Rudy Hartzog

SPECIES

Canine

BREED

Pug Mix

SEX

Mixed

AGE

5.26.2010

WEIGHT

14.5 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

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

HOSPITAL NAME

Flowertown AH

REFERRING VET

Dr. Kline

INVOICE

11223

DATE

7.14.22

PRESENTING CLINICAL SIGNS

Clinical Exam Findings: Chronic polyuria, polydipsia, and panting: secondary to diabetes vs Cushing's vs other endocrine vs other - concern for a possible mucocele. Urinary incontinence. PU/PD. Eating well.

Abnormal lab-work values: ALKP 865 IU/L (H). ALT 235 IU/L (H). AST 84 IU/L (H). Chloride 99 mEq/L (L). CHOL 922 mg/dL (H). GGT 180 IU/L (H). GLU 267 mg/dL (H). Potassium 5.8 mEq/L (H). TRIG 494 mg/dL (H). B/C Ratio 38 (H). Na/K Ratio 25 (L). PSL LIPA 368 U/L (H). Most-recent bloodwork shows hematocrit 51%. Thrombocytosis. ALP 865. ALT 235. GGT 180.

Current Medications: Trifexis, Novolin 7 units BID. Is currently on insulin (7 units twice/day).
Radiographic Findings: None

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 **prostate** is normal in size (0.97 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 (4.73 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is mildly thickened and there is mild to moderate loss of corticomedullary distinction. Hyperechoic foci are observed within the cortex. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The **right kidney** is normal size (4.91 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is mildly thickened and there is mild to moderate loss of corticomedullary distinction. Hyperechoic foci are observed within the cortex. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The **left adrenal gland** is enlarged (0.69 cm at cranial pole) (0.74 cm at caudal pole) (2.17 cm in length); with a slightly irregular shape. The parenchyma is mildly heterogenous with some loss of glandular detail. No distinct focal lesions are observed. The phrenicoabdominal vein and surrounding vasculature appear normal.

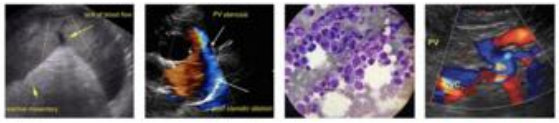
The **right adrenal gland** is upper limits of normal size (1.24 cm at cranial pole) (0.55 cm at caudal pole) (2.25 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The **spleen** is normal in size (0.70 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 swollen peripheral contours. The parenchyma is hyperechoic relative to the spleen, attenuating, slightly heterogenous in appearance. No distinct focal lesions are observed. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.



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The **gall bladder** lumen is moderately distended. The wall is thin and smooth. A small amount of mostly gravity dependent, echogenic to mineralized debris, +/- tiny cholelithsare observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The **gastric lumen** contains a small amount of ingesta and shadowing material. 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. There is evidence of mucosal speckling and fogging in some segments. Discreet masses are not identified. The colonic wall is normal. The colonic lumen contains shadowing fecal material. There is no evidence of an obstructive pattern.

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

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

Other

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Mild, bilateral adrenomegaly (left greater than right side). This finding is most consistent with hyperplastic change. It could be secondary to hyperadrenocorticism.
- The hepatic parenchymal changes are non-specific and could be secondary to vacuolar hepatopathy (i.e., due to diabetes mellites), regenerative nodular hyperplasia, inflammatory disease, hepatotoxicosis (i.e., copper), other hepatopathy or some combination thereof.
- Mineralized gall bladder debris, +/- tiny cholelithsincidental.

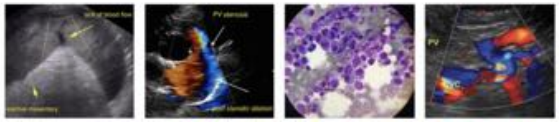
Secondary Findings

- Bilateral chronic age-related renal changes with dystrophic mineralization
- The small intestinal changes could be consistent with Inflammatory disease. However, correlation with the patient's clinical history is recommended.
- The shadowing material within the gastric lumen may represent ingesta and/or foreign material. It appears nonobstructive at the time of this study.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

If the patient's diabetes is unregulated based on clinical history and recent blood glucose curves, consider the following:

1. Further testing for Cushing's Disease (i.e., low-dose dexamethasone suppression test or ACTH stimulation test).
2. Urine culture and sensitivity



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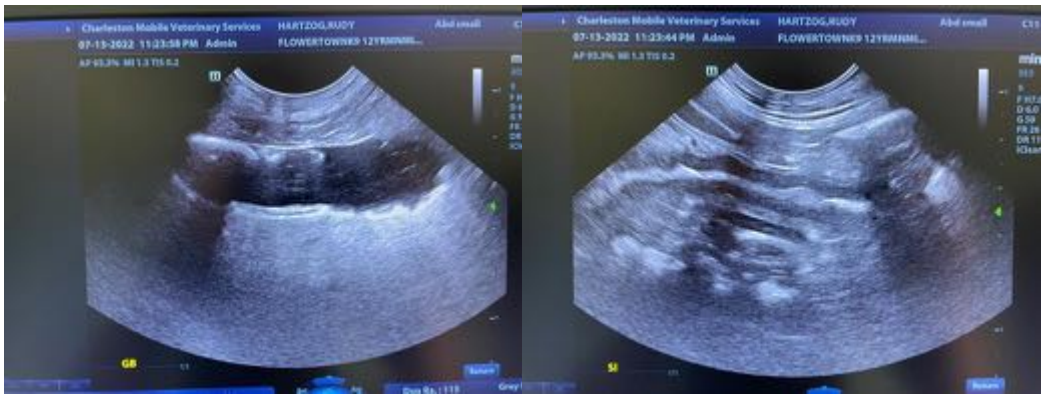
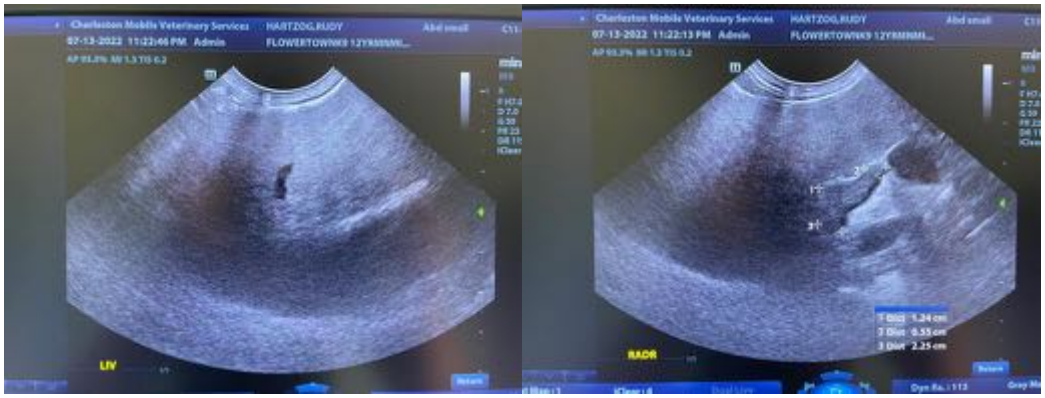
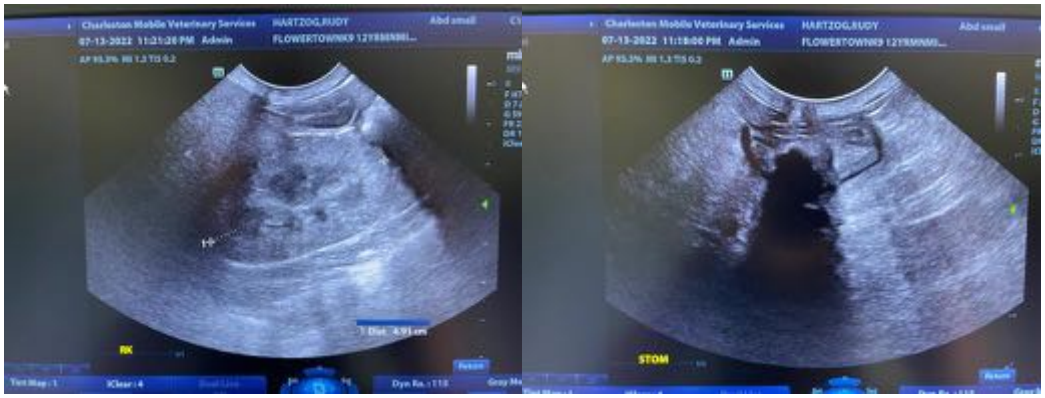
3. Pre-and postprandial serum bile acids can also be considered to assess hepatic function. If elevated, hepatic tissue sampling (i.e., fine-needle aspirate or surgical biopsy) may be warranted. Surgical biopsies are preferred in that they are more likely to be representative of global organ pathology. If pursued, aerobic and anaerobic bile cultures as well as acquisition of additional hepatic tissue samples for potential copper quantitation are also recommended.







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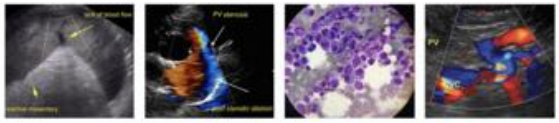

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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