

**DATE PRESENTING CLINICAL SIGNS**

5/26/2022 Uncontrolled diabetic. Newly hypercalcemic last BW.

PATIENT

Winnie Cardwell

Current Medications: Vetsulin 9 units BID, Proin 25 mg po sid. Gabapentin 100mg 2-3hours prior to scan.
Lab Results: urine culture negative, SG 1.029 inactive sediment - OK concentration/kidney function. BW: ALP 299 was 197, Ca++ 12.3 - 10.3***, Na+ 137 - 145, Cholesterol 559- 1339, Triglycerides 2996 was 788, fructosamine 470 poor control - > 2 years of poor regulation
Date of Previous IntraPet Ultrasound: 10/11/2021. See attached.

SPECIES

Canine

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

BREED

Miniature Schnauzer

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System****SEX**

Spayed Female

The urinary bladder, trigone, and pelvic urethra are 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.

AGE

11/2/2012

The left kidney is normal size (5.29 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

WEIGHT

18.2lbs

The right kidney is normal size (5.24 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

INTERPRETED BY

Andrea Nicastro, DMV,
Diplomate DACVIM
(Small Animal
Internal Medicine)

Adrenal Glands

The left adrenal gland is mildly enlarged (0.55 cm at cranial pole) (0.68 cm at caudal pole) (0.95 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.

HOSPITAL NAME

Eastern Animal
Hospital

The right adrenal gland is normal size (0.61 cm at cranial pole) (0.60 cm at caudal pole) (2.40 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.

REFERRING VET

Dr. Haviland

Spleen**INVOICE**

10975

The spleen is subjectively normal in size (1.08 cm in width at the level of the hilus) with normal peripheral margins. The parenchyma is of appropriate echogenicity, with a coarse echotexture. Numerous pinpoint hyperechoic foci are observed throughout the organ. A few, ill-defined myelolipomas are observed at the hilus. Splenic vasculature appears normal, with no evidence of thrombosis.

Liver

The liver is subjectively enlarged with rounded, peripheral contours. The parenchyma is hyperechoic relative to the spleen and diffusely mottled, with numerous small, but varying-sized hypoechoic nodules/areas throughout the organ. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. 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. 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.

Other

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

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 disease is considered less likely, given the normal ALT. Infiltrative neoplasia (i.e., round cell tumor) is possible, but also considered less likely, given that the hepatic changes are similar to the previous sonogram.
- Bilateral, minor, chronic, age-related renal changes
- Splenic dystrophic mineralization. This is a common finding with endocrinopathies, such as diabetes mellitus.

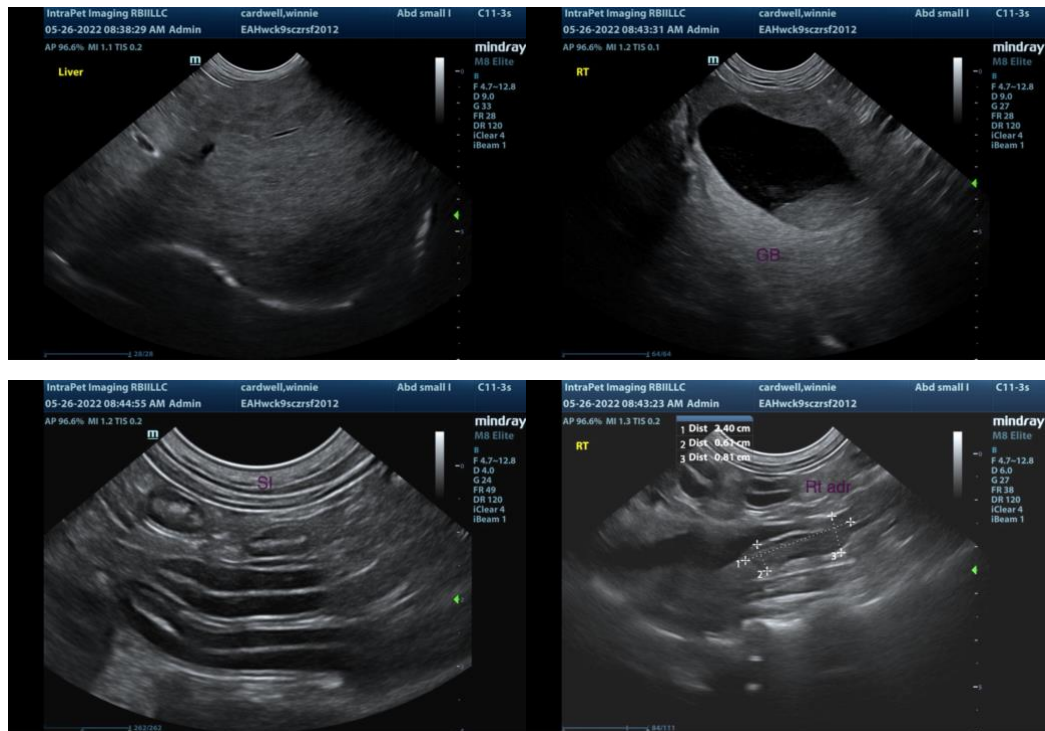
*An obvious cause for the patient's hypercalcemia is not identified in this study. Considerations include occult neoplasia, primary hyperparathyroidism, occult infection (i.e., fungal), other.

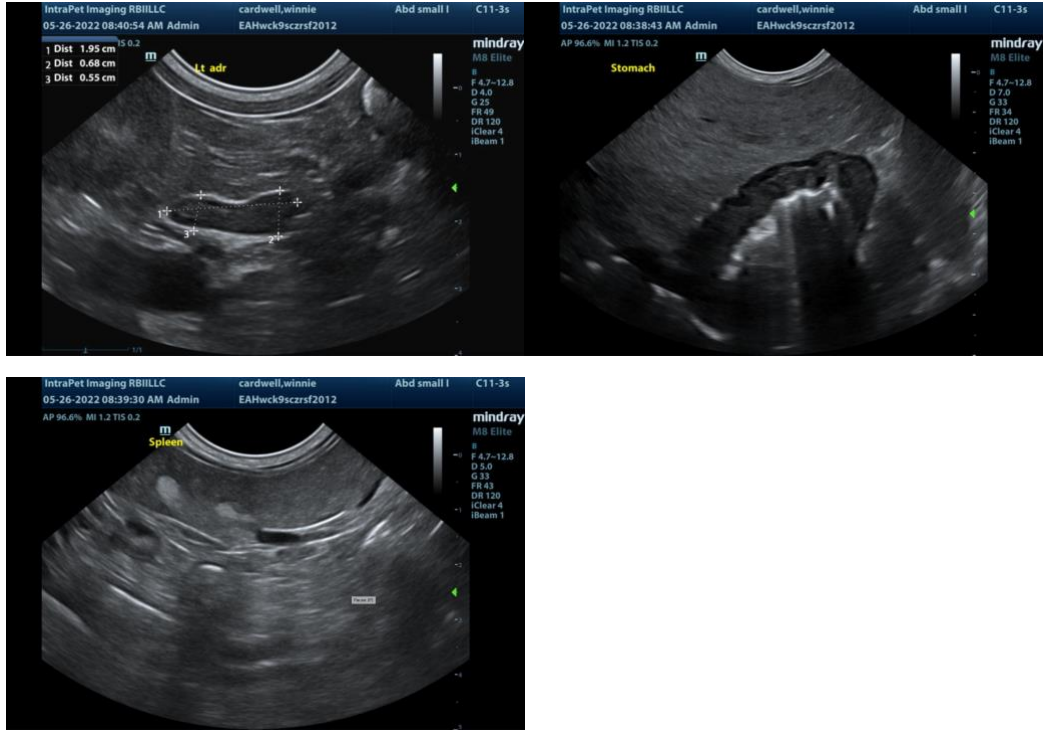
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Regarding the hypercalcemia, consider the following:

1. Rectal examination to assess for anal gland masses.
2. Thoracic radiographs to assess for neoplasia in the chest
3. PTH/PTHrP/ionized calcium

Regarding the liver changes, a fine-needle aspirate can be considered if clotting status is appropriate. Cytology results will help to further assess for round cell neoplasia in the liver. However, cytologic evaluation of the liver is not ideal for assessing for other hepatopathies (i.e., inflammatory disease, copper hepatopathy, fibrosis)





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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