

**PATIENT**

Karmel Godke

PRESENTING CLINICAL SIGNS

History: Wellness BW revealed elevated Ca and ALP. Repeated 2 weeks later and results are persistent. Non-symptomatic besides atopy symptoms, not PU/PD, no AG concerns.

SPECIES

Canine

Abnormal PE/Chem/CBC/UA Results: Grade 2 dental disease, overweight, atopy, KCS (not controlled) 6/7 labwork: 4+ Lipemia & Hemolysis - Ca 11.9, ALP 1263 6/20 (fasted): Ca 12.4, ALP 1626

BREED

Shih Tzu

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

SEX

FS

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 5.1 cm in length. The right kidney measured 5.5 cm in length.

AGE

8 yr

WEIGHT

24 lb

The area of the aortic trifurcation was free of pathology.

The area of the iliac trifurcation was free of pathology.

No pathology in the area of the uterine remnant.

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.49 cm width at the caudal pole and 2.0 cm length. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.42 cm width at the caudal pole and 1.8 cm length.

IMAGING PERFORMED BY

Sarah Pender CVT

Spleen

The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Several small nonexpansive symmetrical, hypoechoic nodules were present throughout the medial parenchyma adjacent to the hilus an example measuring 0.6 cm in diameter. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory or neoplastic changes were not noted. The echogenic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas.

HOSPITAL NAME

SVS Imaging QC

REFERRING VET

Dr. Doerscher

Liver

The liver presented enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with primarily anechoic luminal content. The cystic and common bile ducts were normal.

INVOICE

11014ag

DATE

06/29/2022

Gastrointestinal

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The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

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The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas**BREED**

Shih Tzu

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

Free Abdomen**SEX**

FS

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

AGE

8 yr

ULTRASONOGRAPHIC FINDINGS

- Vacuolar hepatopathy pattern-subjectively benign
- Benign splenic nodules-consistent with benign myelolipomas
- Otherwise sonographically normal abdomen

WEIGHT

24 lb

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of intra-abdominal neoplastic criteria or other pathology as a definitive cause of the hypercalcemia was present on this study. The hepatic presentation was consistent with benign hepatopathy, screening hepatic FNA assuming normal clotting status and using a 25g needle could be considered for cytology. Hepatosupportive medications including Denamarin may prove beneficial.

The bilateral adrenal glands were not overtly suggestive of hyperplasia and were without evidence of adrenal neoplastic criteria. Three view chest radiographs are suggested if not done. Further assessment of the hypercalcemia may include Ca⁺⁺ level, PTH +/- PTHRP levels.

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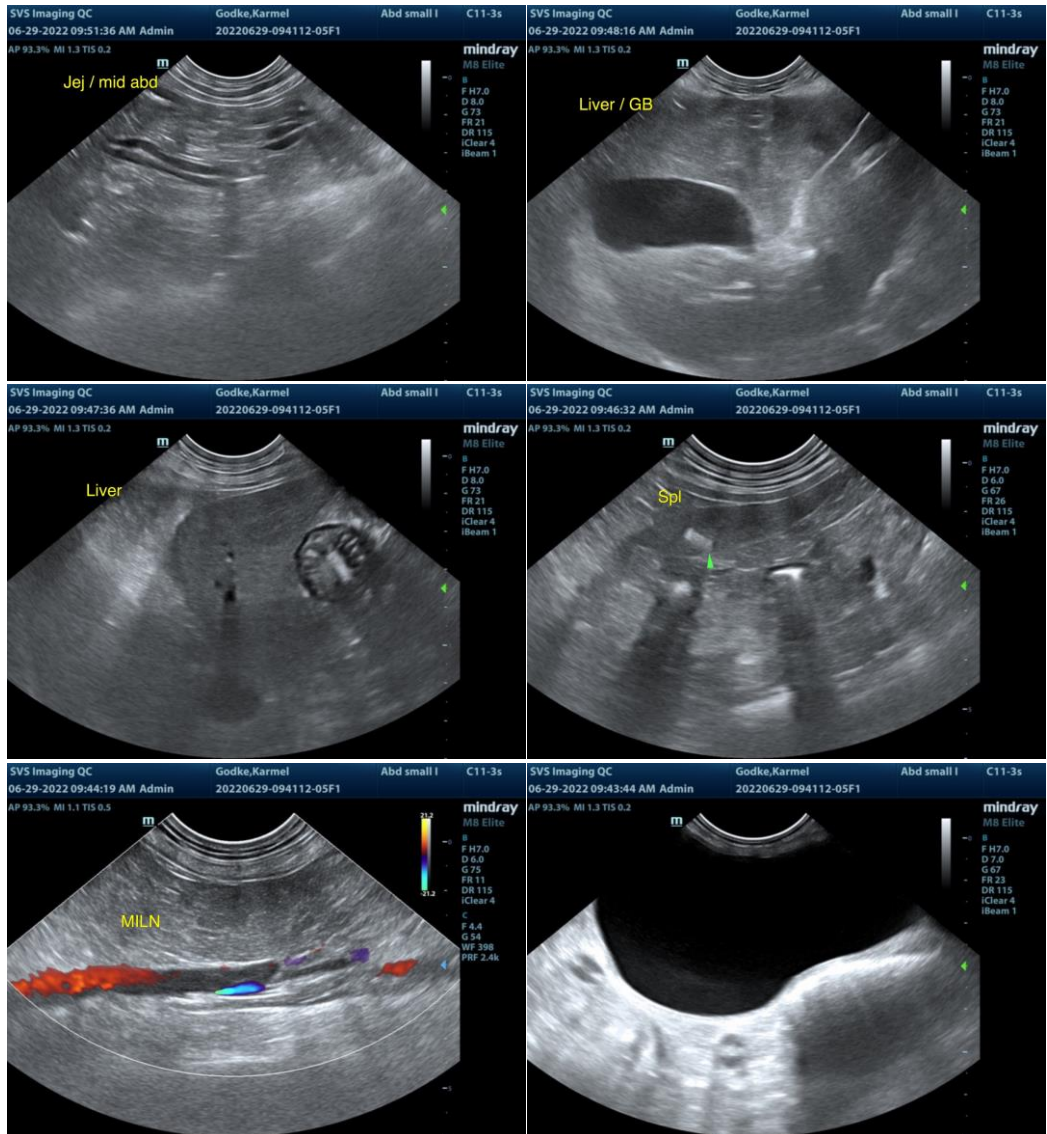
Dr. Doerscher

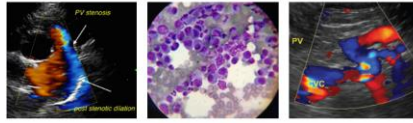
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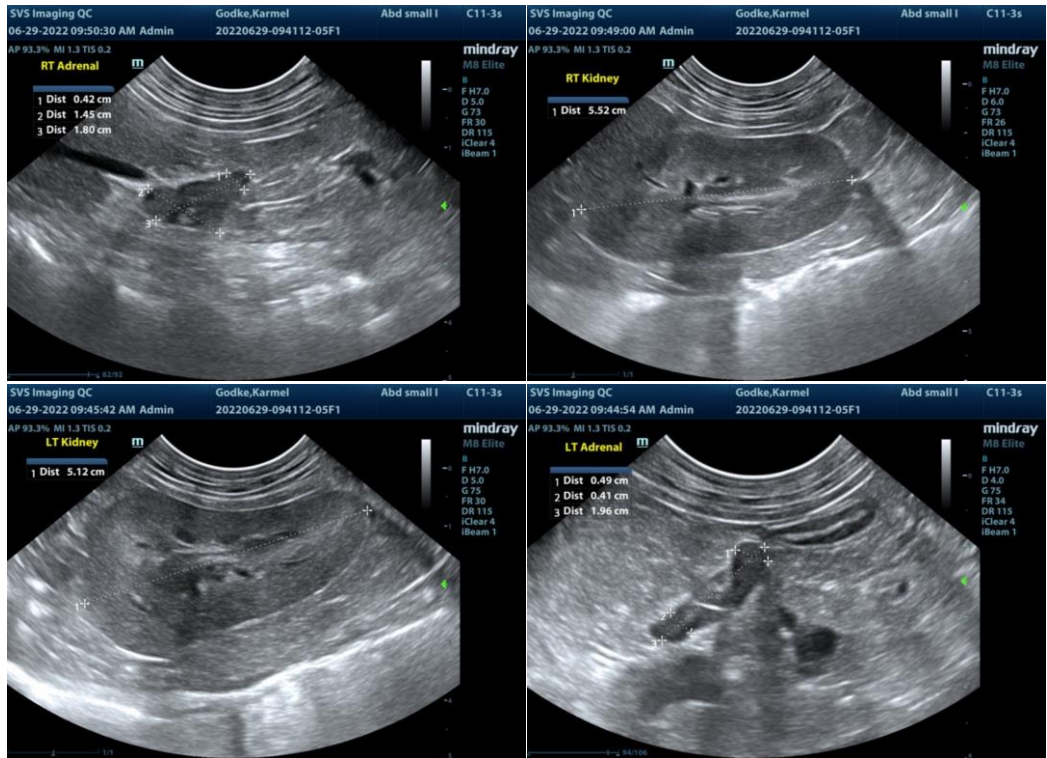
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

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