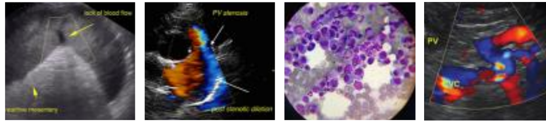


PATIENT

Merry Morrow

SPECIES

Canine

BREED

Beagle

SEX

MN

AGE

14 years

WEIGHT

20 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Jenna Walsh, CVT

HOSPITAL NAME

Countryside AC

REFERRING VET

Dr. Cox

INVOICE

15854

DATE

1/17/23

PRESENTING CLINICAL SIGNS

Weight loss, annual wellness screen showed BG 27, BG confirmed 2 days later at 24,food given 2 hours prior to BG reading. Two other dogs from same litter have been diagnosed with insulinoma. Current Medications Omeprazole, Advita (pro-biotic) Primary Question/Differential to Be Ans wered in This Exam Concern for insulinoma due to hx of other dogs from same litter.

Abnormal PE/Chem/CBC/UA Results: BG 24, elevated Ca and liver enzymes. Will email results

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no sediment or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 0.74 cm in diameter.

No evidence of medial Iliac or sublumbar lymphadenopathy.

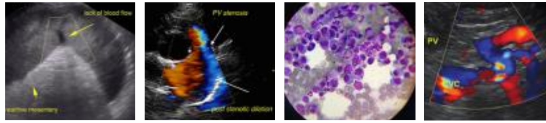
Normal renal size with asymmetrical margination were present in both kidneys. The renal cortex presented uniformly increased echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Mild to moderate loss of corticomedullary distinction was also present. The renal medullary volume was subjectively reduced. Pinpoint medullary mineral were noted. No pyelectasia was present in either kidney. The left kidney measured 4.8 cm in length. The right kidney measured 5.1 cm in length.

Adrenal Glands

Bilateral symmetrical adrenal gland borderline mild prominent size with uniformly hypoechoic parenchyma was present. The left adrenal gland measured 0.69 cm width at the caudal pole and 0.63 cm width at the cranial pole. The right adrenal gland measured 0.62 cm width at the caudal pole. No adrenal tumors were noted.

Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. 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. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.



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Liver/ Gallbladder

The liver exhibited generalized enlargement with symmetrical to mildly rounded hepatic contour and nonhomogeneous mildly hypoechoic hepatic parenchyma. No visualized hepatic masses or nodules were noted. The gallbladder was non-distended in size containing primarily anechoic content with mild to moderate, dependent to possibly peripherally adhered mineral. No evidence of gallbladder or peripheral gallbladder inflammation was noted. The cystic and common bile ducts were normal. No evidence of post-hepatic obstructive criteria was noted.

Gastrointestinal

The stomach presented intact, mildly prominent wall layering. The stomach contained a mild amount of retained variably echogenic ingesta and luminal gas. No evidence of mechanical pyloric outflow obstruction was noted. The ventral gastric body wall width measured 0.40 cm.

The small intestine presented intact wall layering and maintained a 1:3 muscularis/mucosa ratio with mild segmental to generalized duodenojejunal mucosal speckling. No obstructive pattern to the level of the colon was noted.

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

Pancreas

The pancreas exhibited variably prominent size with capsule asymmetry and isoechoic, nonhomogeneous pancreatic parenchyma. Focal to intermittent discrete nondisruptive nodule/nodules noted in the left pancreatic limb with an example measuring 0.8 cm diameter.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

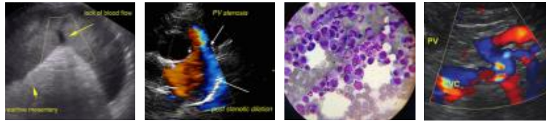
ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Hepatopathy exhibiting nonhomogeneous subjective mild hypoechoic parenchyma
- Nonobstructive gallbladder mineral / cholelithiasis
- Variably prominent heterogeneous focal discretely nodular pancreas
- Intact yet mild prominent gastric walls, mild variably echogenic gastric ingesta
- Nonspecific small bowel mucosal speckling

Secondary Findings

- Mild chronic renal changes with pinpoint medullary mineral
- Bilateral mildly prominent adrenal glands - nonspecific



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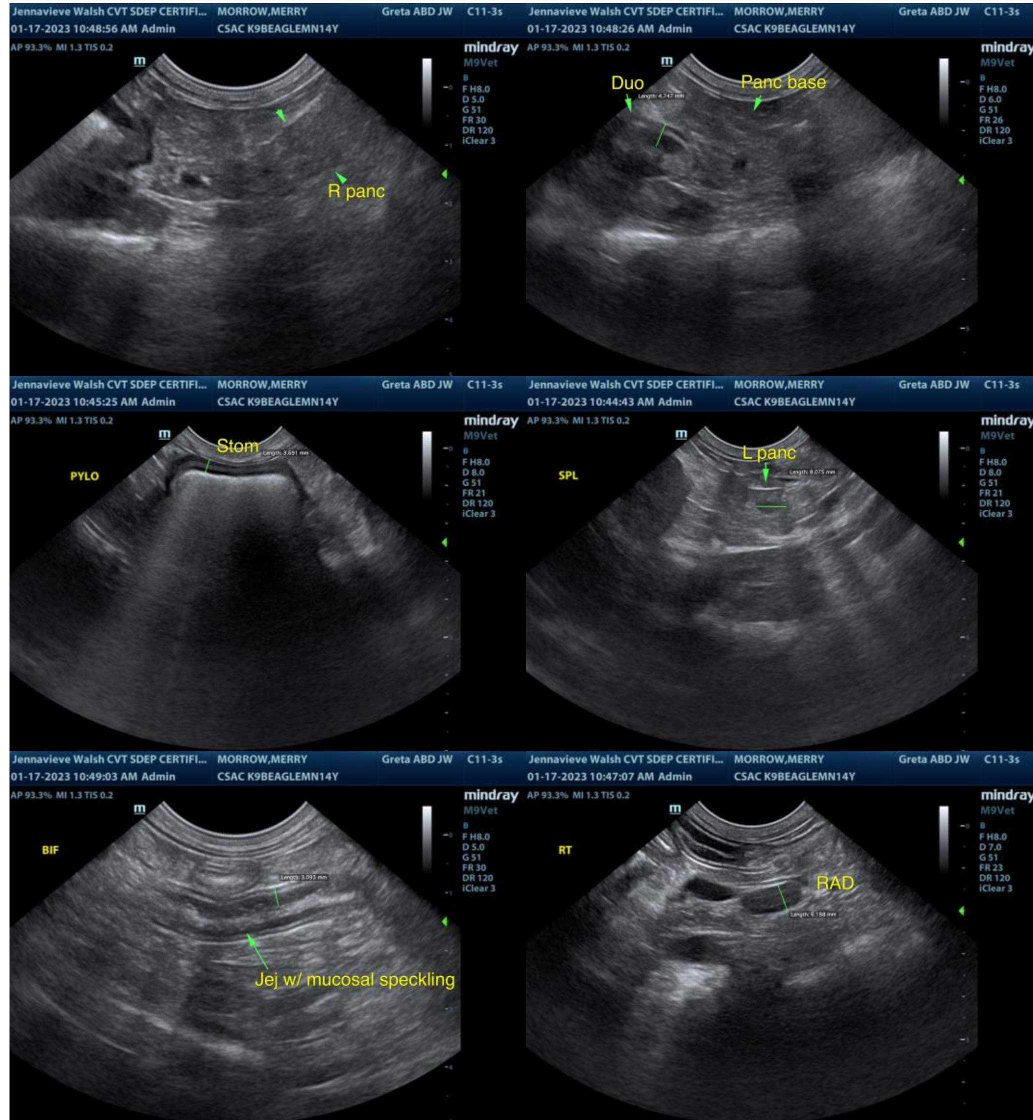
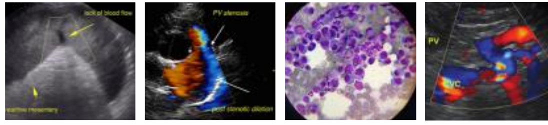
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A definitive pancreatic mass or significant nodule was not appreciated in this study. However, insulinomas tend to be small to discrete tumors and may be difficult to identify or assess sonographically, and therefore could be present yet not visualized. Correlation with insulin: glucose ratio on same serum sample is suggested.

Further assessment of the weight loss may include a GI panel to include PLI/TLI/Cobalamin/Folate, as well as screening hepatic FNA cytology, assuming normal clotting status and using a 25-gauge needle, for further assessment of the hepatic enzyme elevations as well as occult disease as a contributing factor. Three-view chest radiographs are also recommended to rule out occult disease. Pending additional diagnostics, and if strong clinical concern for insulinoma, abdominal CT may be indicated.





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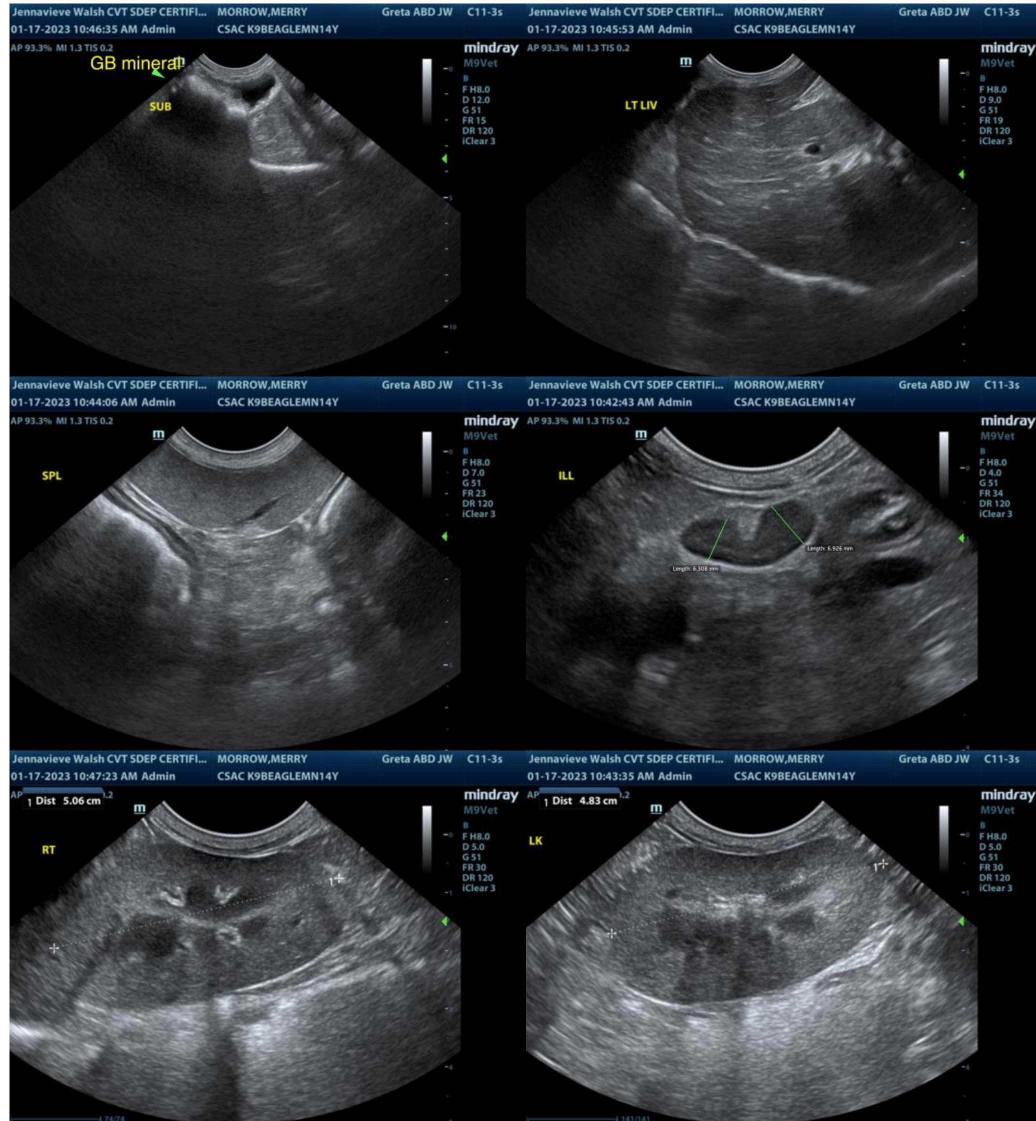

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
info@SonoPath.com