



PATIENT

Ruby Ory

SPECIES

Canine

BREED

Pug X

SEX

FS

AGE

16 years

WEIGHT

9 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Patti Mayfield, DVM

HOSPITAL NAME

Highland Vet
Hospital

REFERRING VET

Rachel Poet, DVM

INVOICE

10629

DATE

2/11/26

PRESENTING CLINICAL SIGNS

History:

- Increasing dementia symptoms of night waking, barking and some loss of awareness of normal surroundings.
- More recently increased morning appetite – waking o up early for breakfast and not settling until fed. Also has a history of recurrent uroliths treated surgically
- Recent senior labwork (10/25) revealed increasing liver enzymes, p was started on Denamarin and continued Royal Canin Early Renal with instructions to recheck liver panel in 2 – 3 months.
- Liver panel rechecked this week with ongoing elevations.
- Concerns include hyperadrenocorticism or neoplasia

Abnormal PE/Chem/CBC/UA Results: Senior panel results from 10.30.25: CBC: - sl leukopenia with lymphocytopenia and eosinopenia Chem: - increased ALT = 220 - increased ALP = 700 - increased GGT = 15 - increased Cardiopet proBNP = 1,187 pmol/L Liver panel results from 2.2.26 Hypoproteinemia = 5.3 g/dL (5.5-7.5) Hypoalbuminemia = 2.4 g/dL (2.7-3.9) Increased ALT = 595 U/L (18-121), prev 220 Increased ALP = 1,288 U/L (5-160), prev 700 Increased GGT = 39 U/L (0-13), prev 15 Hypercholesterolemia = 500 mg/dL (131-345), prev 312

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. No mineral or calculi noted. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

No evidence of pathology in the area of the aortic trifurcation.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomodullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 4.7 cm in length. The right kidney measured 4.9 cm in length.

Adrenal Glands

The bilateral adrenal glands were mildly in size. Mild parenchyma heterogeneity and mild capsule asymmetry were present without suspicion for overt neoplasia. The left adrenal gland measured 0.65 cm width in the caudal pole. The right adrenal gland measured 0.67 cm width in the caudal pole.

Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. 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, neoplastic, or benign parenchyma changes were not noted.



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Liver/ Gallbladder

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 normal wall. Mild echogenic, nonmineralized, non-dependent biliary sludge is present. The biliary sludge is congealed without organization. No signs of peripheral inflammation.

Gastrointestinal

The stomach presented normal intact wall layering and was nondistended in appearance. Strongly shadowing lumen echo measuring ~2.5 cm in diameter was present along with mild retained nonshadowing ingesta / chyme.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Segmental mild nonshadowing ingesta / chyme was present.

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

Pancreas

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 were evident.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

- Normal urinary bladder – no evidence of mineral or calculi
- Mild age-related renal changes
- Bilateral mild adrenomegaly
- Hepatopathy – nonspecific yet subjective benign
- Immature gallbladder mucocele
- Nonspecific shadowing gastric echo – dense ingesta, treat, medication, potential for nonobstructive gastric foreign body not excluded

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Adrenal screening or workup is recommended if clinical signs consistent with Cushing's Syndrome are noted. Assuming normal clotting status, hepatic FNA cytology could be considered for further clarification, primarily to assess for evidence of inflammation given ALT elevation. Vacuolar / nonobstructive cholestatic hepatopathy, inflammatory hepatic disease, hyperplasia, or other hepatopathy are possible without overt hepatic neoplastic criteria. No evidence of intrahepatic or extrahepatic macroscopic shunt. If neurological abnormalities are present, a bile acid profile could be considered, given hypoalbuminemia. Continued hepatosupportive medications, including Ursodiol if



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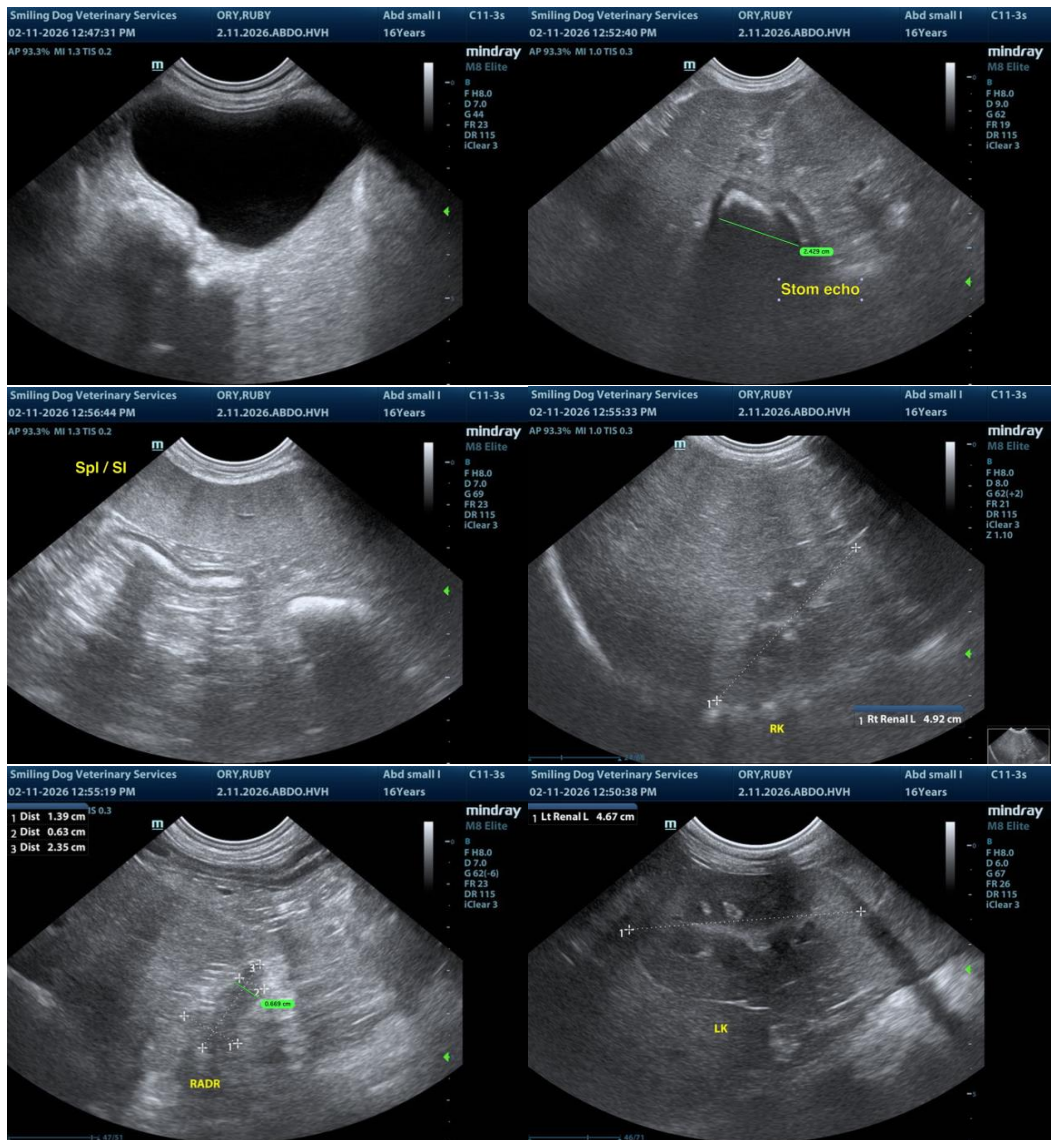
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tolerated, with sonographic monitoring of the gallbladder, if progressive hepatopathy or cholestasis are present, is recommended.

Correlation with the most recent meal ingestion is indicated. If nonreported gastrointestinal signs are present or documented NPO, a 12-18-hour fast and sonographic reassessment of the stomach is recommended.





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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