



PATIENT PRESENTING CLINICAL SIGNS

Dante Gregor

History: Increased ALKP and Hepatomegaly on rads. Currently on Apoquel.
Abnormal PE/Chem/CBC/UA Results: ALP elevated, Potassium elevated, increased Cholesterol. U/A - elevated UPCR and proteinuria. Sp. Grav 1.027

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

BREED

Havanese X

Urinary System

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.

SEX

Neutered Male

The left kidney is normal in size (1.58 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is moderate loss of corticomedullary distinction. Pinpoint hyperechoic foci are observed within the cortex. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

AGE

13 years

The left kidney presented normal size (5.13 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

WEIGHT

14.3 kg

The right kidney is normal in size (5.36 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

INTERPRETED BY

Andrea Nicastro, DVM,
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Medicine)

Adrenal Glands

The left adrenal gland is normal size (0.62 cm at cranial pole) (0.64cm at caudal pole) (2.23 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.

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Hartzel AH

The right adrenal gland is upper limits of normal size (1.29 cm at cranial pole) (0.73 cm at caudal pole) (1.76 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 (0.95 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.

REFERRING VET

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Liver

The liver is subjectively enlarged with swollen irregular peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely heterogenous in appearance. There is a 5.50 cm swelling +/- mass effect at the caudal aspect. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

DATE

2/18/22



PATIENT

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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.

SPECIES

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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 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 or overt infiltrative disease is noted.

BREED

Havanese X

Pancreas

The right of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

SEX

Neutered Male

AGE

13 years

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

WEIGHT

14.3 kg

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The hepatic parenchyma could be consistent with a benign process such as regenerative nodular hyperplasia +/- concurrent vacuolar hepatopathy. However, infiltrative neoplasia cannot be completely excluded.

Secondary Findings

- Bilateral degenerative renal changes with dystrophic mineralization
- Age-relate pancreatic remodeling
- The mild prostatomegaly may be a normal variant for this patient or may represent emerging neoplasia.
- Correlation with the patient's clinical signs is recommended.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- Hepatic tissue sampling (i.e., fine-needle aspirate or surgical biopsy) can be considered to help rule out infiltrative neoplasia. A surgical biopsy would be ideal as cytologic evaluations are often inconclusive with regard to evaluating for primary hepatic tumors.
- If the UPC is significantly elevated, consider imitation of an angiotensin receptor blocker, omega 3 fatty acids +/- an anti-thrombotic agent (i.e., clopidogrel). Also consider a baseline blood pressure measurement.



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- Consider testing for hyperadrenocorticism with a low-dose dexamethasone suppression test or ACTH stimulation test if clinical signs (i.e., PU/PD) develop in the future.

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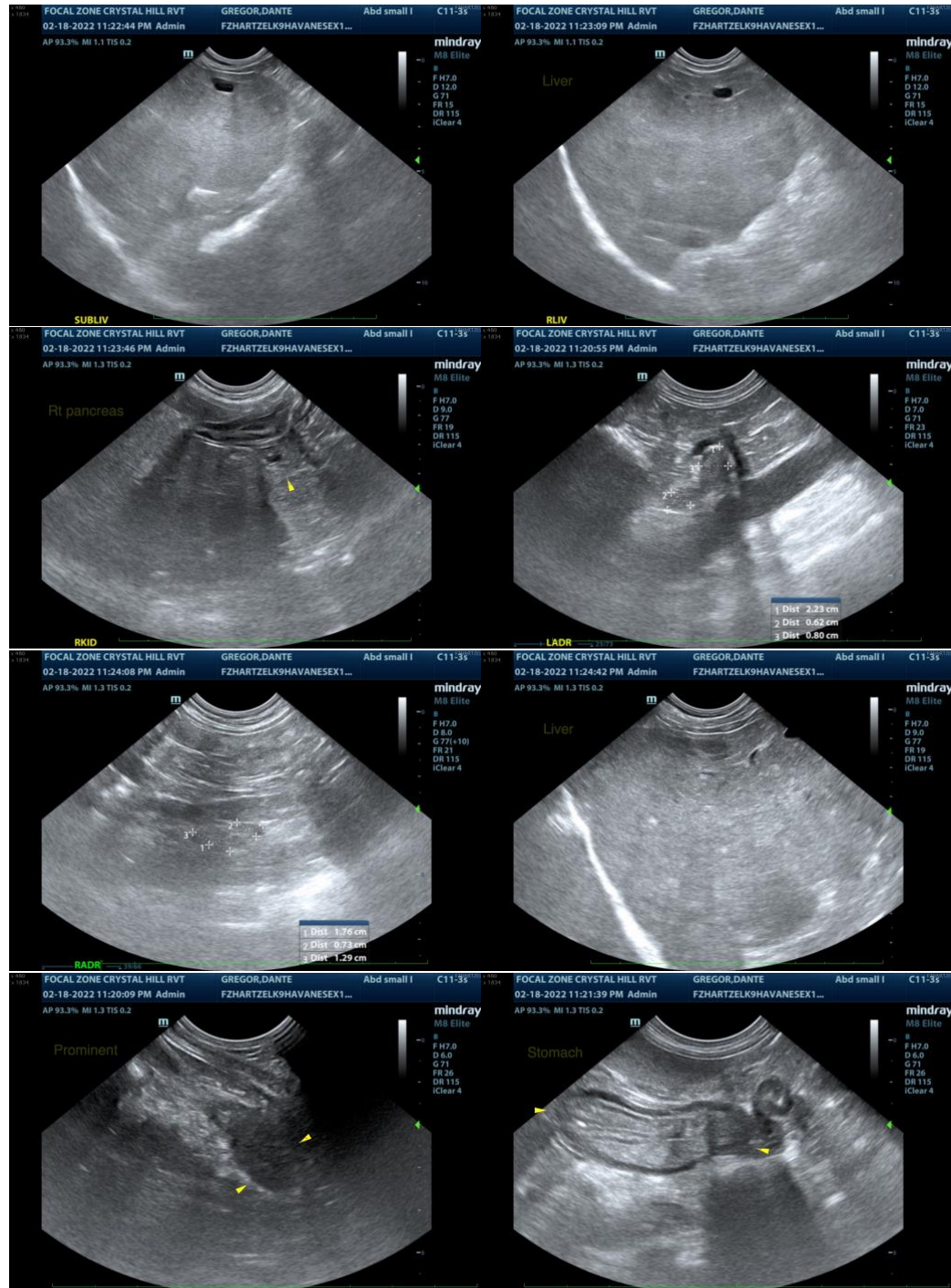
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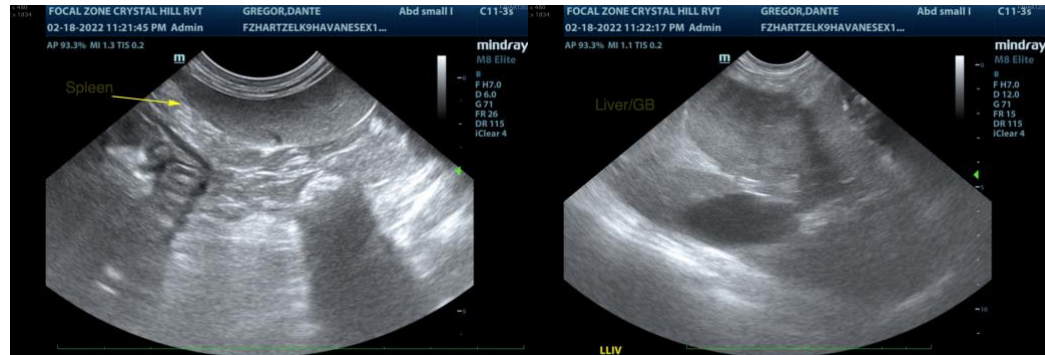
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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