**DATE PRESENTING CLINICAL SIGNS**

10/4/22

History of elevated liver enzymes - started on Denamarin approx., 1 month ago. Owner noted beginning last night started with blood in stool. No vomiting Not eating. No new treats. Does get into cat food. Was seen rDVM Friday - ears cleaned.

PATIENT

Bird Cuozzo

Current Medications: Buprenorphine.
Lab Results: See attached.

Radiographs: Lateral and VD abdomen - liver appears enlarged. Fluid throughout intestines, no obvious foreign material

SPECIES

Canine

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

BREED

Dachshund

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

SEX
Neutered male

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. Small bladder calculus was noted and measured 0.23 cm. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

AGE

10/3/08

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. Non-obstructive calculi were noted. Occasional microcystic cortical changes noted. The left kidney measured 5.05 cm. The right kidney measured 4.91 cm.

WEIGHT**INTERPRETED BY**

Eric Lindquist, DMV
DABVP, Cert. IVUSS

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 1.88 x 0.76 cm at the caudal pole and 0.7 cm at the cranial pole. The right adrenal gland measured 1.55 x 0.65 cm at the caudal pole and 0.66 cm at the cranial pole.

HOSPITAL NAME

Animal Emergency
Hospital

Spleen

The **spleen** in this patient was mildly enlarged with uniform parenchyma and was folded upon itself and mildly heterogenous. This is a positional variant and is not pathological. There was no evidence of significant disease.

REFERRING VET

Dr. Goessling

Liver

The **liver** presented heterogenous parenchyma with increased portal markings and coarse architecture. Slight undulating capsular contour was noted. A hyperechoic to isoechoic nodule was noted in the right cranial liver measuring 2.18 cm and was adjacent to the diaphragm and was non-disruptive. The gallbladder was mildly over distended with suspended and dependent debris, yet not to the level of emerging mucocele, yet sludge appears to be mildly excessive. Excessive debris was noted in the cystic duct. No adjunctive inflammation was noted.

INVOICE

39915

Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

Pancreas

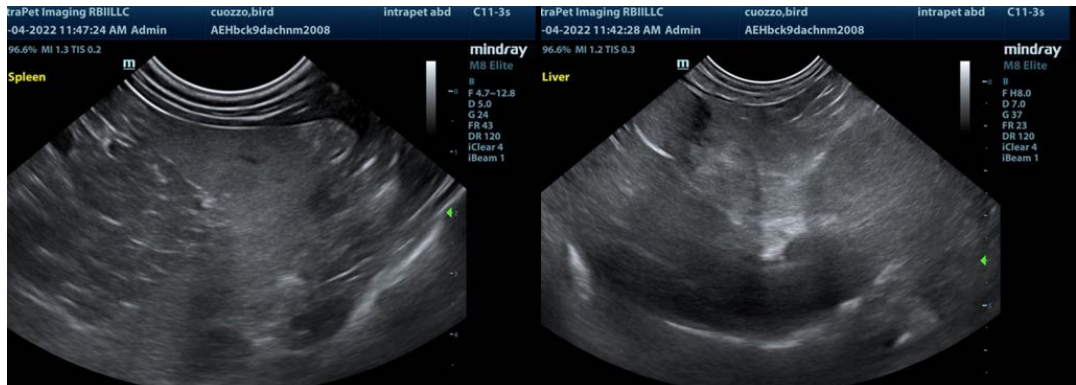
Diffuse hyperechoic changes were present in the area of the **pancreas**. The pancreatic remodeling was evident with multifocal to diffuse hyperechoic changes. These changes are consistent with fibrosis, amyloid, saponification of fat and may contain areas of low-grade chronic active inflammation especially if pain on imaging (+ Murphy sign) was present +/- focal subxiphoid palpation reveals pain response. No overt masses were noted.

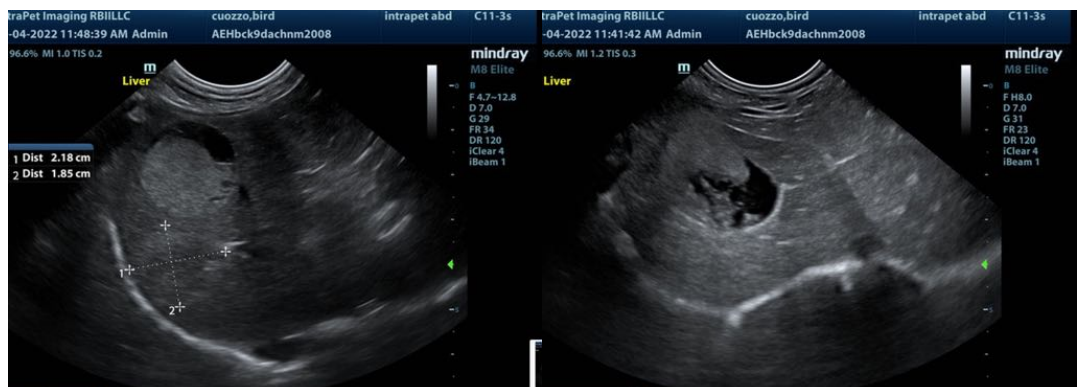
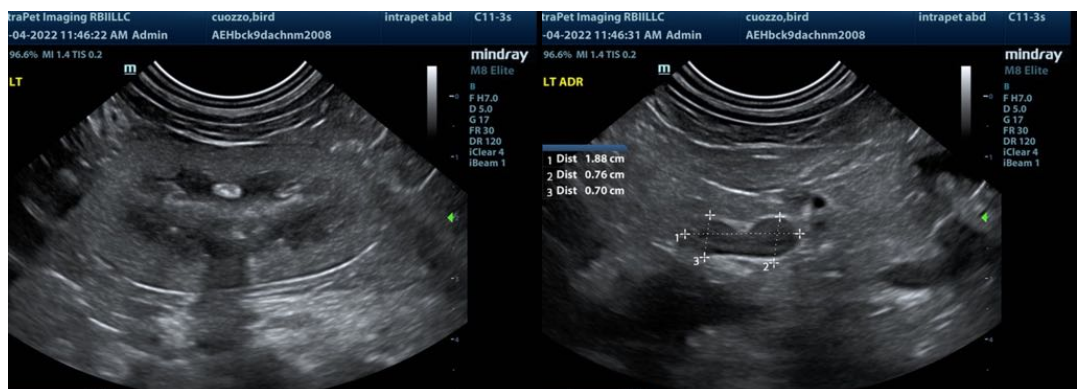
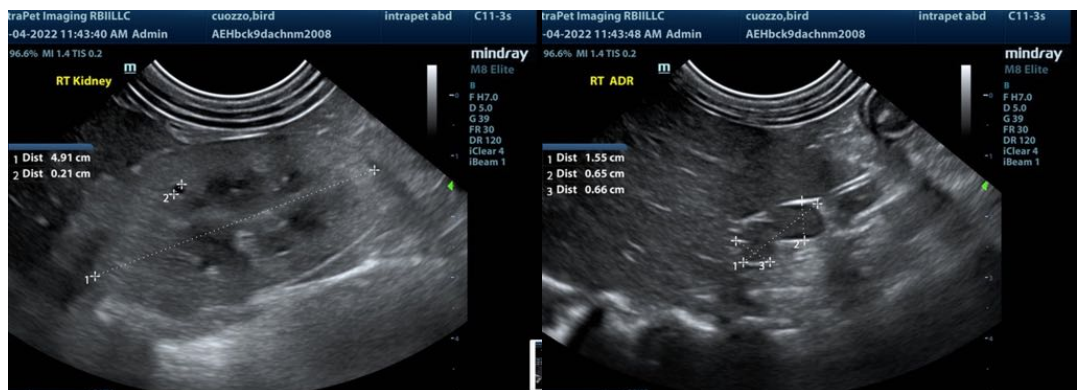
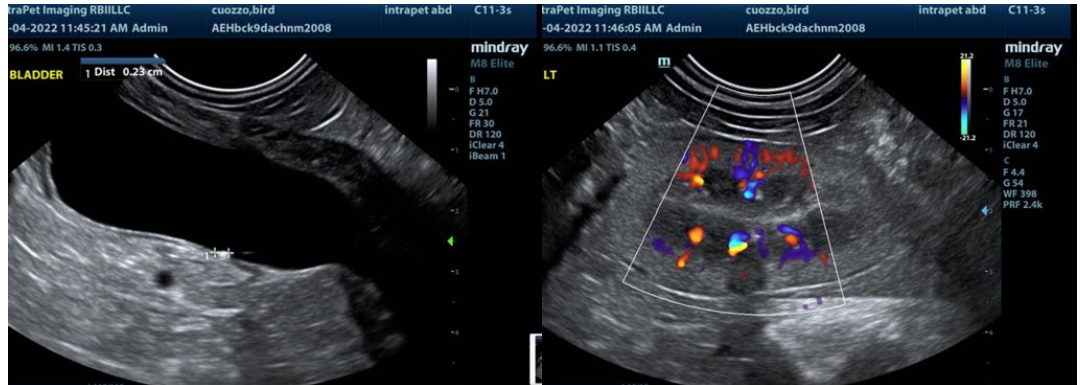
ULTRASONOGRAPHIC FINDINGS

- Hepatic remodeling.
- Moderate degenerative renal changes.
- Pancreatic remodeling.
- Small bladder calculus.
- Gallbladder sludge.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient is likely passing calculi periodically. All in all the abdomen appears fairly stable; however, bile acid profile is warranted given the hepatic changes. Ursodiol therapy is indicated. Recheck sonogram is recommended in 6-8 weeks. The bladder sand appears to be small enough to pass without too much difficulty. FNA of the liver could be considered for further definition. There is no suspicion of neoplasia.







The information and recommendations provided are based on the images presented by the referring veterinarian. 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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