

**DATE PRESENTING CLINICAL SIGNS**

1/10/2022

History: Was seen on exam for ADR. Patient has been dealing with intermittent vomiting and diarrhea.
 History of possible liver disease per bloodwork

PATIENT

Gracie Surface

Current Medications: Cerenia PRN.

Lab Results: AST- 225, ALT – 1862, Increased ALKP 264, GGT 66, Normal T-bili. Normal CBC

Date of Previous IntraPet Ultrasound: 2015

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

SPECIES

Canine

Imaging Performed By: Andi Parkinson, RDMS.

BREED

Maltese

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is mildly 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

Female, intact

AGE

8/27/2014

The left kidney is normal in size (3.95 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is moderate loss of corticomedullary distinction. A hyperechoic medullary band is observed adjacent to the corticomedullary junction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis.

WEIGHT

8.5 lbs.

The right kidney is normal size (3.89 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is moderate loss of corticomedullary distinction. A hyperechoic medullary band is observed adjacent to the corticomedullary junction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis.

INTERPRETED BY

Andrea Nicasro, DVM,
 Diplomate ACVIM
 (Small Animal Internal
 Medicine)

Adrenal Glands

The left adrenal gland is normal size (0.50 cm at cranial pole) (0.48 cm at caudal pole) (1.44 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.

HOSPITAL NAME

Abbey AH

The right adrenal gland is normal size (0.49 cm at cranial pole) (0.53 cm at caudal pole) (1.19 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.

REFERRING VET

Dr. Kroll

Spleen

The spleen is normal in size (1.13 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.

INVOICE

12808

Liver

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and subtly heterogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The portal vein: caudal vena cava ratio is approximately 1:1. The gall bladder lumen is moderately distended. The wall is thin and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is mildly distended with ingesta. The gastric wall is 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 disease is noted.

Pancreas

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

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

Other

The ovaries are subjectively normal in size and shape (left ovary 1.07 x 0.52 cm; right ovary 0.92 x 0.62 cm). No obvious pathology is observed. Left uterine horn 0.57 cm in width.

The uterine body is 0.49 cm in width. The right uterine horn is 0.65 cm in width. The uterus appears normal with no obvious abnormalities.

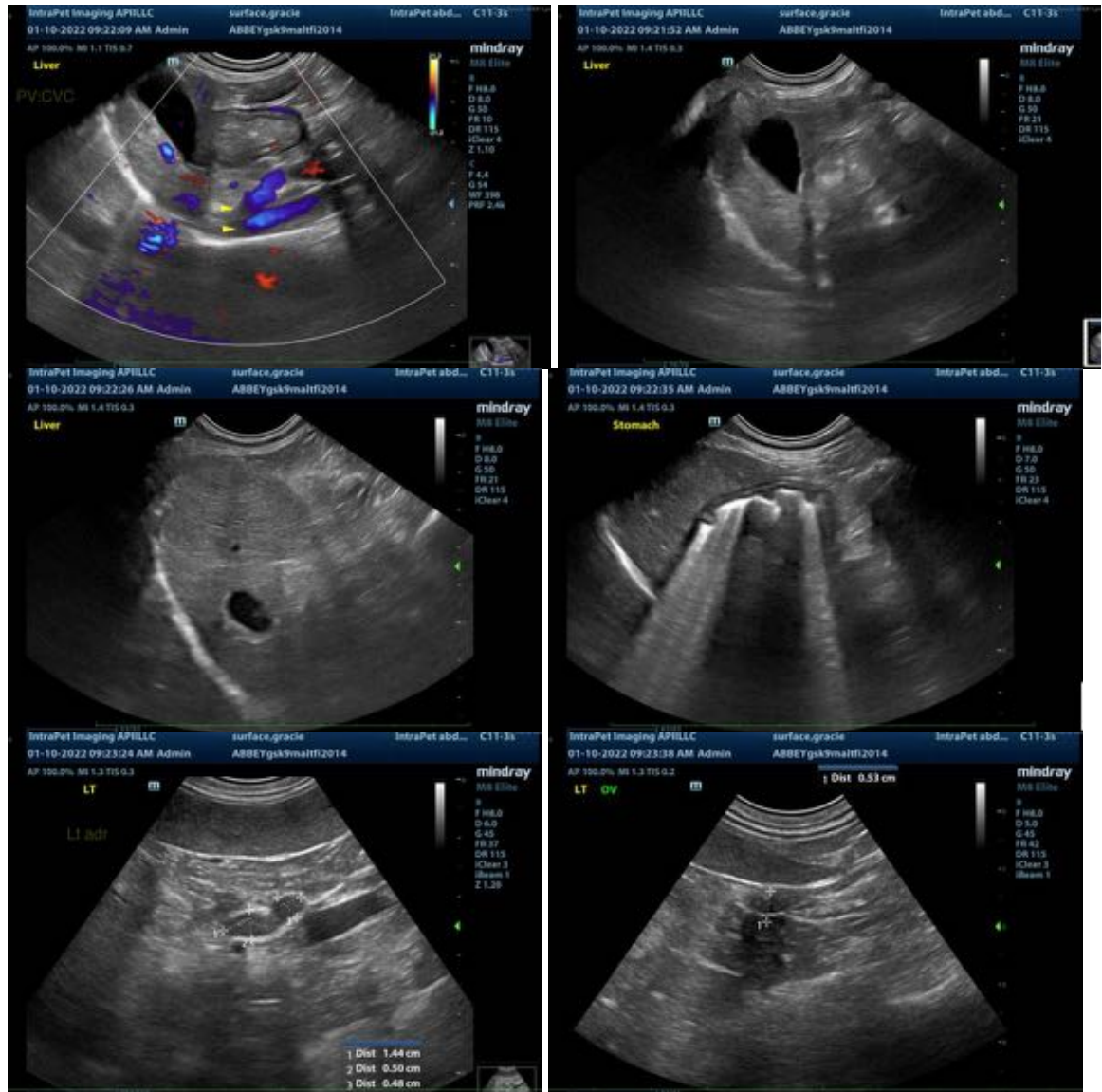
ULTRASONOGRAPHIC FINDINGS

- Non-specific diffuse hepatopathy. Given the severely elevated ALT, inflammatory/immune mediated disease, hepatotoxicosis or infiltrative neoplasia (less likely) are the top differentials. Concurrent benign age-related change such as vacuolar hepatopathy and regenerative nodular hyperplasia are also possible.
- Bilateral age-related renal changes with dystrophic mineralization.
- Unremarkable uterus/ovaries.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Leptospirosis testing (i.e., blood and urine PCR, serology) is strongly recommended.
- Also consider hepatic tissue sampling. Surgical liver biopsies with aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for potential copper quantitation would be ideal. If a more conservative approach is desired, an ultrasound guided fine needle aspirate of the liver can be considered (if clotting status is appropriate).

- While awaiting test results, empirical treatment for bacterial cholangiohepatitis/Leptospirosis is recommended including amoxicillin-clavulanic acid, Denamarin and other supportive measures as needed.
- Also consider three-view thoracic radiographs to assess cardiopulmonary status.





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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