

**DATE PRESENTING CLINICAL SIGNS**

10/28/22 Elevated ALT, bile acids.

PATIENT

Current Medications: 1 month Sam E.
 Date of Previous IntraPet Ultrasound: No previous.
 Sedation: Not required to complete full diagnostic ultrasound.
 Stat Report: Not requested.

Bonnie Ledman

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**BREED**

Chihuahua

Urinary System

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

SEX

Intact Female

The right kidney is normal in size (3.2 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

AGE

5/24/21

The left kidney is normal in size (3.15 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

WEIGHT

6.2 Pounds

Adrenal Glands

The right adrenal gland is normal in size (1.48 cm long x 0.50 cm at the cranial pole and 0.39 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

INTERPRETED BYBeth Johnson, DVM
DACVIM

The left adrenal gland is normal in size (1.2 cm long x 0.48 cm at the cranial pole and 0.67 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

IMAGING PERFORMED BY

Andi Parkinson RDMS

Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

HOSPITAL NAME

Aberdeen Vet Clinic

Liver

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion. The portal vein to vena cava ratio is normal at 1:1.

REFERRING VET

Dr. Fritz

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

INVOICE

42484

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

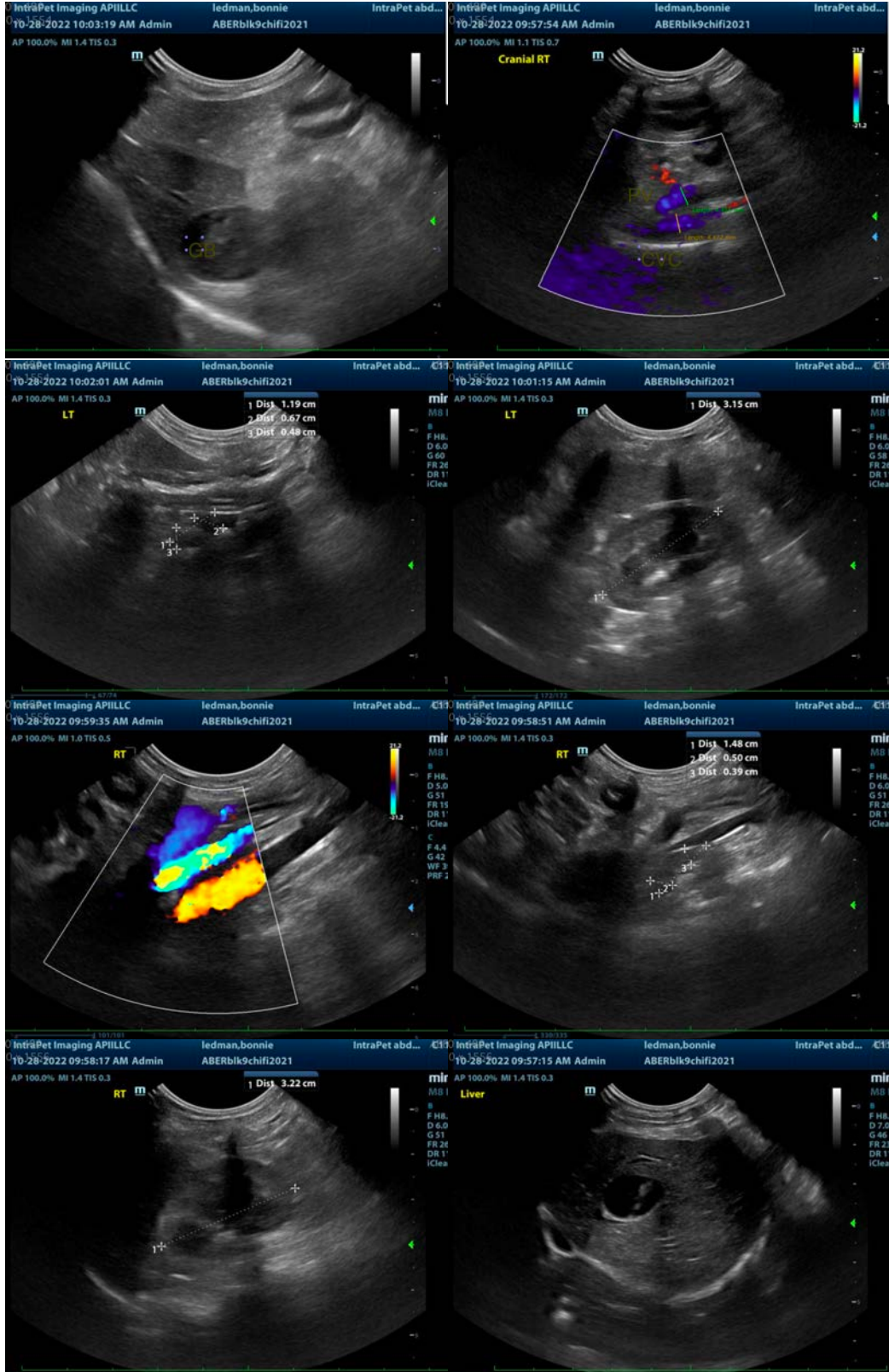
ULTRASONOGRAPHIC FINDINGS

- **Gallbladder debris** - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.
- Otherwise, normal/unremarkable abdomen with a normal portal vein to vena cava ratio, making an extrahepatic portosystemic shunt exceedingly unlikely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Recommendations depend on the exact level of the reported ALT and bile acid increases, as mild bile acid increases can occur with diseases other than decreased liver function, i.e., gastrointestinal disease. A moderate or higher increase in bile acids may suggest Leptospirosis or microvascular dysplasia/portal vein hypoplasia. Therefore, recommendations include testing for Leptospirosis +/- a liver biopsy if patient's coagulation status is appropriate, again pending the exact increases and patient clinical status, etc., as many cases of microvascular dysplasia/portal vein hypoplasia are subclinical.

In the meantime, empirical deworming with a 5-day course of Panacur is recommended in addition to the reportedly already in place hepatic nutraceuticals, and potentially a course of broad-spectrum antibiotics could be considered with monitoring of liver enzymes for improvement.



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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