

**DATE PRESENTING CLINICAL SIGNS**

8.4.23 Abnormal lab-work values: Elevated LE. ALT 655. ALP 308.
 May 2023: ALT 148. ALP normal.

PATIENT

Summer Inano

Current Medications: None listed.
 Lab Results: See attached.
 Date of Previous IntraPet Ultrasound: No previous.
 Sedation: Patient sedated with Torbugesic & Midazolam.
 Stat Report: Not requested.
 Imaging Performed By: Andi Parkinson, BS, RDMS.

SPECIES

Canine

BREED

Poodle

SEX

Neutered Male

AGE

8/1/2009

WEIGHT

60 lbs

INTERPRETED BY

Andrea Nicastro, DMV,
 Diplomate DACVIM
 (Small Animal
 Internal Medicine)

HOSPITAL NAME

Homeward Bound
 Vet Svc

REFERRING VET

Dr. Vance

INVOICE

13959

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. Luminal contents are anechoic. No cystic calculi are observed. The region of the trigone is normal.

The region of the prostate is not visualized due to its pelvic location.

The left kidney is normal in size (6.0 cm in length) with a normal shape, architecture and smooth peripheral margins. The cortex is isoechoic relative to the spleen. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The right kidney is normal in size (5.29 cm in length) with a normal shape, architecture and smooth peripheral margins. The cortex is isoechoic relative to the spleen. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is normal in size (0.62 cm at cranial pole) (0.66 cm at caudal pole) (2.65 cm in length) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is in normal size 0.91 cm at cranial pole) (0.53 cm at caudal pole) (1.94 cm in length) with a normal shape and 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 (1.96 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.

Liver

The liver is subjectively normal in size. A 2.77 x 2.34 cm hypoechoic nodule/mass is observed on the right side, at the caudal aspect. The lesion causes mild capsular expansion. In the remainder of the liver, the parenchyma is hypoechoic relative to the spleen with numerous, small, ill-defined hypoechoic nodules seen throughout the organ. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder is moderately distended. The wall is normal in thickness. A few polypoid-like lesions are observed along the luminal surface. A small amount of suspended echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The lumen is not distended. 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. There is no evidence of an obstructive pattern.

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.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The hepatic nodules, particularly the larger nodule/mass, are concerning for a possible neoplasia process. However, a multifocal inflammatory disease, hepatotoxicosis (i.e., copper), regenerative nodular hyperplasia, or other hepatopathies cannot be excluded.

Secondary Findings

- Bilateral chronic nonspecific age-related renal changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Fine-needle aspiration of the hepatic nodules (with particularly attention to the largest one on the right side) can be considered. However, due to their location underneath the ribcage, they may be difficult to access. An intercostal approach may be required to access these lesions. Ultimately, consider laparoscopic or surgical liver biopsies. If biopsies are pursued, aerobic and anaerobic bile cultures should be obtained along with acquisition of hepatic tissue samples for potential copper quantitation.
- If a more conservative approach is desired, consider empirical treatment for cholangiohepatitis with amoxicillin-clavulanic acid along with hepatic antioxidants. If liver values do not begin to improve within 7-10 days of initiating therapy, antibiotics should be discontinued and hepatic tissue sampling reconsidered. If values do improve, a 4–6-week course of treatment is recommended.
- Other considerations include the following:
 1. Leptospirosis testing (i.e., blood and urine PCR, serology)
 2. Pre-and postprandial serum bile acids



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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