

**DATE PRESENTING CLINICAL SIGNS**

10/29/21 History: Patient went to er on 10/25/2021 for trouble breathing and collapse and lethargy.

PATIENT Current Medications: No current medications.

Foo Saven Lab Results: ALT >1000.

SPECIES Radiographs: WNL.

Canine Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

BREED Sedation: Not needed.

French Bulldog Stat Report: Not requested.

SEX ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Male Neutered *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.

AGE

11/10/19

WEIGHT

27.6 lbs.

The prostate is normal in size (1.11 cm in width) with a normal shape and smooth peripheral contours. A 0.50 x 0.65 cm irregular, hyperechoic nodule is observed within the parenchyma. The prostatic urethra is not overtly dilated.

INTERPRETED BY

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The left kidney is normal size (5.10 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 hydroureter. Renal vasculature is normal.

The right kidney is normal size (5.08 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 hydroureter. Renal vasculature is normal.

HOSPITAL NAME

Northwind Animal
Hospital

Adrenal Glands

The left adrenal gland is normal size (0.43 cm at cranial pole) (0.59 cm at caudal pole) (1.82 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. Cross

The right adrenal gland is normal size (0.51 cm at cranial pole) (0.59 cm at caudal pole) (1.92 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.

INVOICE

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Spleen

The spleen is normal in size (1.38 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 with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative, or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. The portal vein to 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 stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is minimally fluid-distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. 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 pancreas is diffusely visible with normal curvilinear peripheral contours. The parenchyma is slightly hypoechoic relative to surrounding omental fat. No distinct focal lesions are observed. The pancreatic duct is not dilated. There is no evidence of peripancreatic 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:

- An obvious cause for the elevated liver enzymes is not identified in the study. However, a microscopic hepatopathy (i.e., bacterial cholangiohepatitis, Leptospirosis, chronic active hepatitis, copper-associated hepatotoxicity, infiltrative neoplasia (less likely)) are considerations.
- The pancreatic changes may be a normal variant for this patient or could be consistent with mild, chronic pancreatitis. Correlation with clinical findings is recommended.

Secondary Findings:

- The hypoechoic prostatic nodule trends towards the benign (i.e., a focus of lymphoid hyperplasia or fibrosis) with a low possibility of an emerging neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

1. Consider pre- and post-prandial serum bile acids and Leptospirosis testing (i.e., blood and urine PCR, serology).
2. Cytologic evaluation of the liver should be considered in this patient if clotting status is appropriate. A fine needle aspirate using a 25-gauge needle is recommended.
3. If a conservative approach is desired, consider empirical treatment for bacterial cholangiohepatitis (amoxicillin-clavulanic acid, Denamarin Advanced). If no improvement in the liver values is seen within 7-10 days of initiating therapy, antibiotics should be discontinued, and hepatic tissue sampling reconsidered. If liver values improve, continue therapy for at least 4-6 weeks and 1 week beyond normalization of the liver values.

4. Given the episode of dyspnea, three-view thoracic radiographs are also recommended 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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