



PATIENT PRESENTING CLINICAL SIGNS

Buffet Sabio History: Patient presents for elevated liver enzymes, icterus, and suspicion of possible biliary obstruction vs. other.
Abnormal PE/Chem/CBC/UA Results: Elevated ALT/ALK.PHOS./TP/T.BILI.

SPECIES

Canine

BREED

Labradoodle

SEX

Spayed Female

AGE

10 years

WEIGHT

95.9 bs

INTERPRETED BY

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ACVIM (*Small Animal
Internal Medicine*)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Westwood Regional
VH

REFERRING VET

Dr. George Cattiny

INVOICE

11637

DATE

9.14.22

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** wall is normal in thickness. The mucosal surface in the region of the apex is slightly irregular. 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.

The **left kidney** is normal size (6.59 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

The **right kidney** is normal size (5.83 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 hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The **left adrenal gland** is normal size (1.81 cm at cranial pole) (0.65 cm at caudal pole) (2.60 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.

The region of the **right adrenal gland** is evaluated. No obvious pathology is observed.

Spleen

The **spleen** is normal in size (1.75 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 normal to slightly small in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and slightly mottled in appearance. No distinct focal lesions are observed. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

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 mildly 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. Discrete 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. A 1.69 x 0.59 cm medial iliac **lymph node** is visualized.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

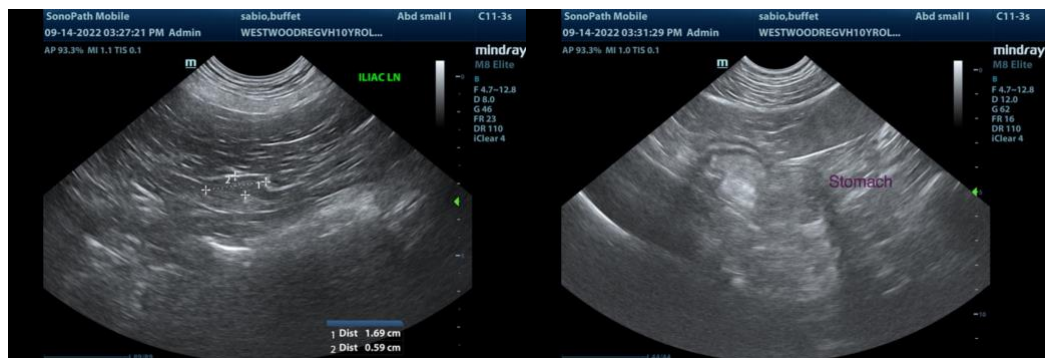
- An obvious cause for the elevated liver enzymes is not identified in the study. However, a microscopic hepatopathy (i.e., bacterial cholangiohepatitis, Leptospirosis, chronic active hepatitis, copper-associated hepatotoxicity, infiltrative neoplasia (less likely)) cannot be excluded. There is no obvious evidence of a bile duct obstruction. However, a small, partial or early obstruction cannot be completely excluded.

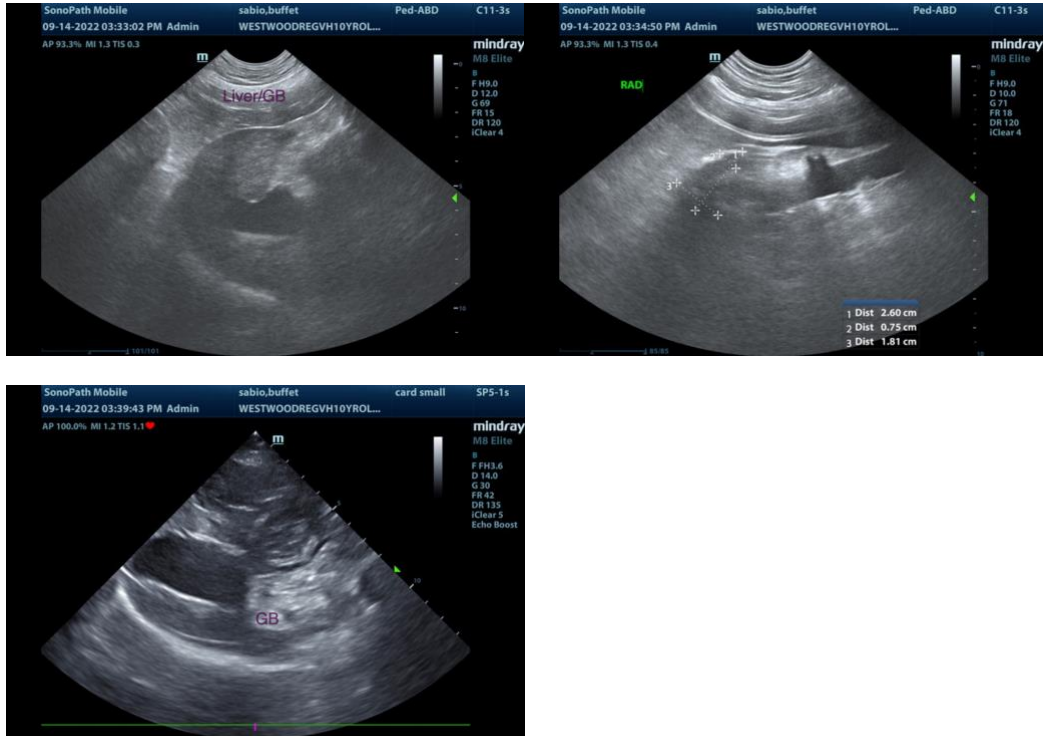
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Leptospirosis testing (i.e., blood and urine PCR, serology) is recommended.

Consider hepatic tissue sampling (i.e., fine-needle aspirate or surgical biopsy) if clotting status is appropriate. If surgery is pursued, aerobic and anaerobic bile cultures should be obtained, and the bile duct should be assessed for patency. Also, additional hepatic tissue samples should be obtained potential copper quantitation. Three-view thoracic radiographs should be performed prior to any anesthetic event.

If a conservative approach is desired, consider empirical treatment for bacterial cholangiohepatitis/Leptospirosis (amoxicillin-clavulanic acid, +/-metronidazole, Denamarin). 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.





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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