



PATIENT PRESENTING CLINICAL SIGNS

Bella Morgan
SPECIES Canine
History: Chief Concern/Provisional Diagnosis: Elevated ALT noted prior to dental cleaning. History / Physical Findings: P presented on 9.12 for pre-op ECG and senior labs in preparation for dental scheduled for 10.3.2022. ECG showed no pathologic arrhythmias, no heart murmur auscultated. P has moderate tartar and mild gingivitis. Pre-op labs showed: cbc - platelets 589,000, chem - TP 7.5, ALT 213 (12-118), Ca 11.5 (8.9-11.4), precision psl 238, HW test negative, T4 2.2. Labs in 10.2020 - ALT 70, wnl. P is clinically doing well. E/D/U/D wnl, No c/s/v/d.

BREED

Chihuahua mix

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

SEX

Female, spayed

The urinary bladder wall is 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 Years

The left kidney is normal size (4.42 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 hydroureter. Renal vasculature is normal.

WEIGHT

18.8 Pounds

The right kidney is normal size (4.78 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 hydroureter. Renal vasculature is normal.

INTERPRETED BY

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

Adrenal Glands

The left adrenal gland is upper limits of normal size (0.45 cm at cranial pole) (0.54 cm at caudal pole); normal shape; smooth peripheral contours. The glandular echogenicity and detail are unremarkable. The phrenicoabdominal vein and surrounding vasculature are normal.

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

The right adrenal gland is normal size (0.47 cm at cranial pole) (0.51 cm at caudal pole) (2.00 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

Desert Hills AH

Spleen

The spleen is normal in size (1.10 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.

REFERRING VET

Dr. Caldwell

Liver

INVOICE

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The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen. 1-2 hyperechoic nodules/areas are observed, the largest measuring 1.17 cm in diameter. In addition, at least 2 1 cm hypoechoic nodules/areas are visualized, one on the left side and one on the right. 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. A small to moderate amount of mostly gravity-

DATE

10/4/22



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dependent echogenic to mineralized debris/sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

SPECIES

Canine

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not 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.

BREED

Chihuahua mix

Pancreas

SEX

Female, spayed

The base and right limb of the pancreas are visible with normal curvilinear peripheral contours. The parenchyma is largely hyperechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

AGE

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Free Abdomen

There is no obvious evidence of free fluid. . A 0.71 cm heterogeneous lymph node is observed in the caudal abdomen. A 1.34 cm mesenteric lymph node is also seen.

WEIGHT

18.8 Pounds

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- The hepatic nodules are non-specific and likely represent a benign process (i.e., regenerative nodular hyperplasia) with a lower possibility of emerging neoplasia. A cause for the elevated ALT is not identified in this study. Considerations include reactive hepatopathy, inflammatory disease (i.e., bacterial cholangiohepatitis, chronic active hepatitis), hepatotoxicosis (i.e., copper), fibrosis, other.

Secondary Findings:

- Age-related pancreatic remodeling/fibrosis. Mild chronic pancreatitis is also possible, particularly if the patient's clinical history supports this diagnosis.
- The lymph node changes are most consistent with reactive lymphadenitis or lymphoid hyperplasia.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Consider pre and post prandial serum bile acids to assess hepatic function. Hepatic tissue sampling (i.e., fine needle aspirate or surgical biopsy) can also be considered if clotting status is appropriate. If biopsies are pursued, aerobic and anaerobic bile cultures are recommended along with acquisition of additional hepatic tissue samples for potential copper quantitation.
- If a more conservative approach is desired, consider empirical treatment for bacterial cholangiohepatitis (i.e., broad spectrum antibiotics, hepatic antioxidants). If no improvement in



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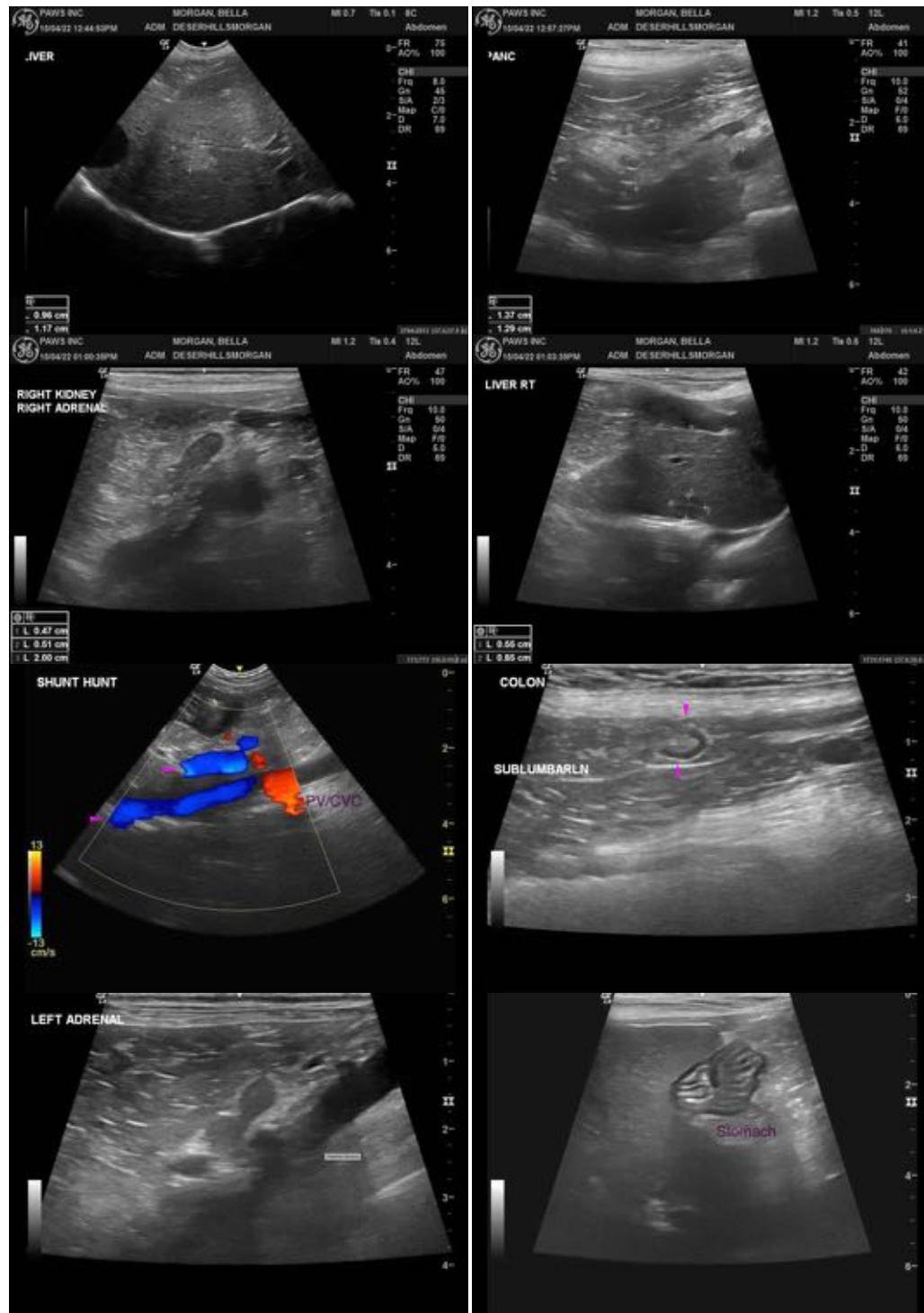
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the ALT is seen within 7-10 days of initiating therapy, antibiotics should be discontinued and hepatic tissue sampling revisited.

- If a dentistry is to be pursued without hepatic tissue sampling, benzodiazepines should be avoided and opioids used judiciously, if needed.





PATIENT

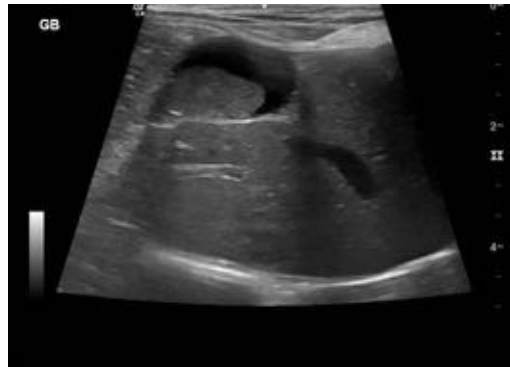
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

AGE

11 Years

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com

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