



**PATIENT**

Bella Matos

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

Female spayed

**AGE**

11 Years

**WEIGHT**

8.5 lbs.

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Dr. Ferrer

**HOSPITAL NAME**

Paseos Veterinary  
Center

**REFERRING VET**

Dr. Ferrer

**INVOICE**

11949kk

**DATE**

10/2/21

**PRESENTING CLINICAL SIGNS**

History: Bella presented for an abdominal ultrasound to further evaluate the increased liver enzymes. Pt originally presented on Sept 29, 2021, for evaluation of seizures that started the previous day and pt had two episodes. PT never before had seizures. PT have Up to date vaccines, is on Flea and HW prevention. The Blood test showed the abnormalities below PT is on IV fluids, Ampicillin ( for possible leptospirosis), Denamarin, and started very low metronidazole 5mg/kg and on Hepatic diet. Pt is on seizure watch.

Abnormal PE/Chem/CBC/UA Results: W: 8.5# T: 10.8F P: 150 R: 30 CRT < 2secs The PE did not show any major abnormalities related to neurological activity ( normal reflexes and cranial nerves) Blood test: CBC: Lymphocytes 0.69 ( 1.05-5.1 K/McL) rest of CBC was wnl T4: 1 ( 1-4) Chemistry: SDMA 19 ( 1-14) ALP 301 ( 23-212U/L) ALT >1,000. ( 10-125) U/A: Urinary Specific gravity 1.017 no other abnormalities with urine Pending : Bile Acids

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*\*\*36 Still images and 21 Video Clips are available for interpretation.*

**Urinary System**

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. A small amount of suspended, echogenic debris is observed within the lumen. 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 (3.64 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. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter.

The right kidney is normal size (3.66 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.

**Adrenal Glands**

The left adrenal gland is mildly enlarged (0.43 cm at cranial pole) (0.58 cm at caudal pole) (1.49 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 right adrenal gland is mildly enlarged (0.55 cm at cranial pole) (0.56 cm at caudal pole) (1.76 cm in length) with a slightly irregular shape. A 0.56 x 0.39 cm irregular, hyperechoic nodule is observed at the cranial pole. The glandular echogenicity and detail at the caudal pole are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**Spleen**

The spleen is normal in size (0.88 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.



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*Liver*

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The liver is subjectively enlarged with swollen, rounded peripheral contours. The parenchyma is isoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small to moderate amount of aggregated, echogenic, partially dependent debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

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*Gastrointestinal*

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.

*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 1.18 cm sublumbar lymph node is seen.

**ULTRASONOGRAPHIC FINDINGS**

**INTERPRETED BY**

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

- Non-specific, diffuse hepatopathy. Differentials include inflammatory/immune-mediated disease, Leptospirosis, infiltrative neoplasia +/- concurrent age-related pathology (i.e., vacuolar hepatopathy or regenerative nodular hyperplasia).
- Gall bladder debris - non-mucocele.
- Mild bilateral adrenomegaly. The right adrenal nodule trends towards the benign (i.e., nodular hyperplasia) with a lower possibility of emerging neoplasia.

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**Secondary Findings:**

- Minor bilateral, age-related renal pathology.
- Urinary bladder debris.
- The prominent sublumbar lymph node is most likely reactive.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

1. Leptospirosis testing (i.e., blood and urine PCR, serology) is recommended.
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. If cytologic evaluation is inconclusive, consider a surgical liver biopsy with aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for copper quantitation.
3. If a conservative approach is desired, consider empirical treatment for bacterial cholangiohepatitis (amoxicillin-clavulanic acid, Denamarin Advanced). If no improvement in

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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.

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- Given the patient's age, three-view thoracic radiographs are recommended to evaluate cardiopulmonary status.

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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.

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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.

**BREED**

Chihuahua

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Andrea.nicastro@sonopath.com

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