



## PATIENT

Luna Chavira

## SPECIES

Canine

## BREED

Chihuahua

## SEX

Female Spayed

## AGE

6y

## WEIGHT

8.68 lbs

## INTERPRETED BY

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

## IMAGING PERFORMED BY

Alexis Cervantes

## HOSPITAL NAME

TLC AH

## REFERRING VET

Brian Giles

## INVOICE

13403

## DATE

4/14/26

## PRESENTING CLINICAL SIGNS

History: Patient is a referral from Adobe AH. Patient presented for routine dental. ACT elevated. Bile acids performed and post bile acids elevated. Needs an ultrasound of the liver.

Abnormal PE/Chem/CBC/UA Results: 3/25/26: HGB : 20.7 RETIC: 146.3 PLT: 110 MPV: 14.3 ALB: 4.2 ALT: 632 ALKP: 362 3/26/26: Bile acids post: 32.9

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment, mineral or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

Normal size and margination was present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 3.7 cm in length. The right kidney exhibited non-obstructive medullary mineral to emerging renoliths. The right kidney measured 3.9 cm in length.

### Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.45 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.38 cm width at the caudal pole.

### Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

### Liver

The liver was normal to possible borderline subnormal in size given patient breed and body weight. Symmetrical contour was maintained with mild non-homogeneous parenchyma. Discrete, hypoechoic intraparenchymal nodules were present with an example measuring 1.1 cm in diameter. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

### Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.



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The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

Normal visible colon wall layers were present with apparent semi-formed feces in lumen.

**Pancreas**

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

**Free Abdomen**

No overt lymphadenopathy or peritoneal effusion was present.

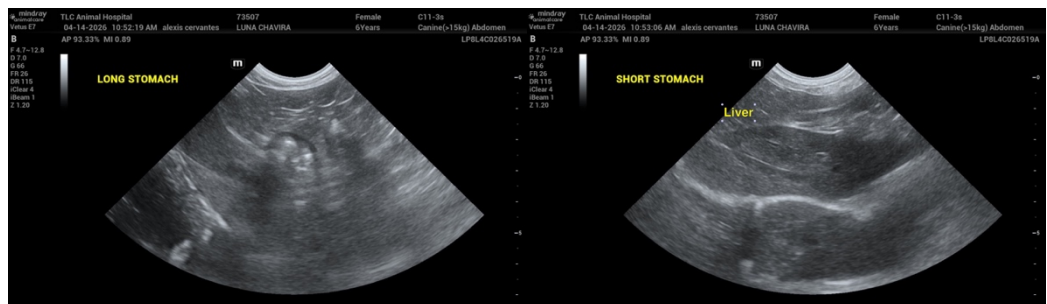
**ULTRASONOGRAPHIC FINDINGS**

- Nonspecific chronic hepatopathy pattern and discrete hepatic parenchymal nodules
- Normal gallbladder
- Right kidney medullary mineral to emerging renoliths
- Normal urinary bladder – no evidence of mineral or calculi

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Considerations for the liver may include vacuolar/cholestatic hepatopathy, inflammatory, infectious or immune mediated disease, i.e. nonspecific potentially chronic hepatitis, areas of nodular hyperplasia, hematopoiesis, hepatotoxicosis, i.e. copper, emerging neoplasia or other. A definitive intrahepatic or extrahepatic macroscopic shunt was not obvious in conjunction with mildly elevated post prandial bile acids. Portal hyperplasia/microvascular dysplasia not excluded.

Assuming normal clotting status and using 25-gauge needle, hepatic parenchyma and if accessible, discrete nodule FNA cytology warranted for further clarification. Leptospiriosis titer/PCR could be considered if clinically indicated. If patient is non-clinical, hepato-supportive medications and clinical/sonographic monitoring would be reasonable. Hepatic biopsies for histopathology would be required for definitive diagnosis. Monitoring of BUN, cholesterol, albumin and glucose levels is indicated if hepatic function going forward is advised. If evidence of hepatic dysfunction or progressive elevated post prandial bile acids, Gold Standard CT with contrast may be considered.





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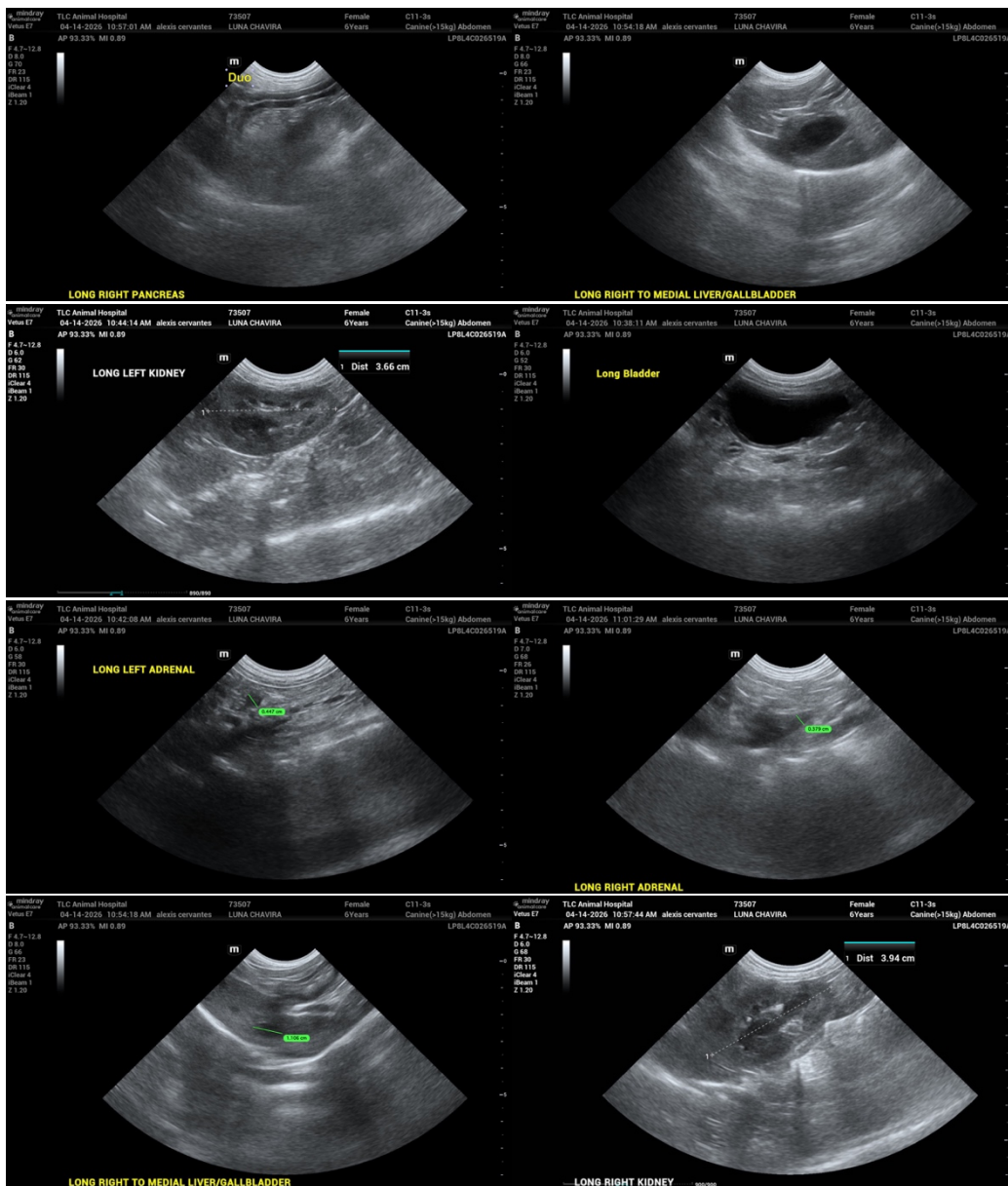
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

[info@sonopath.com](mailto:info@sonopath.com)



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