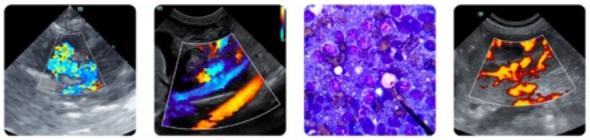


PATIENT

Layla Perez

SPECIES

Canine

BREED

Chihuahua

SEX

Female

AGE

9 years

WEIGHT

7.7 lbs

INTERPRETED BY

Dr. Alicia Angosto Guerrero

IMAGING PERFORMED BY

Kimberly Carrion Rivas

HOSPITAL NAME

Consultorio Veterinario las Brisas

REFERRING VET

Dr. Trautmann

INVOICE

71792

DATE

2/23/26

PRESENTING CLINICAL SIGNS

- The patient chemistry has showed an elevated hepatic enzymes.
- She has started on a hepatic diet and Denamarin but her level keeps going up.
- They came to our clinic because Layla showed GI symptoms and on this visit was when we discovered her high hepatic levels.
- Her ALP level was 439 and ALT was 338.
- Patient is also on vetmedin.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The bladder lumen is mildly underdistended. Cranially, there is an impression of possible mural thickening; however, due to underdistension, wall thickness cannot be reliably assessed. Normal appearance of the bladder neck and proximal urethra. There are no calculi and no evidence of inflammatory or neoplastic changes.

The left kidney is normal in shape and size: 3.39 x 2.01 cm, and the thickness of the cortex is 0.31 cm in the sagittal plane. The cortex is isoechoic compared to liver parenchyma. The corticomedullary ratio is normal, and corticomedullary definition is preserved. There is no evidence of pyelectasia, nephroliths, or hydronephrosis.

The right kidney is normal in shape and size: 3.27 x 1.98 cm, and the thickness of the cortex is 0.35 cm in the sagittal plane. The cortex is isoechoic compared to liver parenchyma. The corticomedullary ratio is normal, and corticomedullary definition is preserved. There is no evidence of pyelectasia, nephroliths, or hydronephrosis.

Adrenal Glands

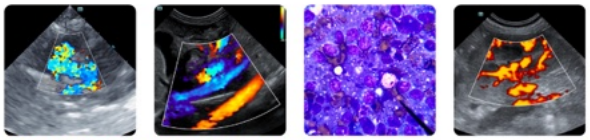
The adrenal glands were not visualized during the submitted study.

Spleen

Splenic thickness is 0.77 cm. The parenchyma demonstrates normal echogenicity and a fine, homogeneous echotexture without focal parenchymal abnormalities. The splenic capsule is smooth and regular.

Liver

The liver is subjectively increased in size, particularly at the level of the right hepatic lobes, which appear enlarged with rounded margins. There is marked parenchymal remodeling characterized by multiple variably sized hyperechoic nodular areas ranging from approximately 0.5 cm up to 2 cm in diameter, interspersed with smaller hypoechoic foci measuring approximately 3–5 mm. No acoustic attenuation, hepatic lymphadenopathy, or dilation of the hepatic veins are identified.



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The gallbladder lumen is normally distended. The wall is thin, and the contents are primarily anechoic with a small amount of biliary sludge. No evident dilation of the cystic duct or common bile duct is observed.

Gastrointestinal

The stomach is empty and folded, with a gas pattern; mural thickness measures 3.3 mm with preserved wall layering. The pylorus measures 6.07 mm. Duodenum: 2.05 mm. Jejunum: 1.70 mm, with normal wall layering. No signs of inflammation, ileus, or foreign material are identified. Colon: transverse segment 2.12 mm, empty and collapsed; descending segment 1 mm, with few formed feces present in the lumen.

Pancreas

The evaluated pancreatic areas do not show evidence of overt inflammation.

Peritoneal Cavity

No sonographic evidence of abdominal effusion, peritonitis, or lymphadenomegaly is identified.

ULTRASONOGRAPHIC FINDINGS

- Hepatomegaly, most pronounced in the right hepatic lobes.
- Multifocal nodular hepatic remodeling with mixed echogenicity (0.5–2 cm hyperechoic nodules and smaller 3–5 mm hypoechoic foci).
- Mild biliary sludge.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is marked hepatomegaly, predominantly involving the right hepatic lobes, with rounded margins and multifocal nodular parenchymal remodeling. The heterogeneous echotexture, characterized by variably sized hyperechoic nodules interspersed with smaller hypoechoic foci, indicates a chronic structural hepatopathy rather than a purely reactive or transient biochemical alteration.

In contrast to cases in which marked enzyme elevations may be seen with a sonographically unremarkable liver, this patient demonstrates clear architectural heterogeneity despite only moderate increases in ALT and ALP. This pattern most strongly supports chronic nodular hepatopathy, such as regenerative nodular hyperplasia or chronic inflammatory remodeling.

While multifocal hepatocellular neoplasia cannot be entirely excluded based on imaging alone, the distribution, echogenic pattern, and absence of aggressive features make a primary chronic hepatopathic process more likely. Definitive differentiation requires histopathologic evaluation.

Recommendations

• Pre- and post-prandial bile acids to assess functional hepatic reserve.

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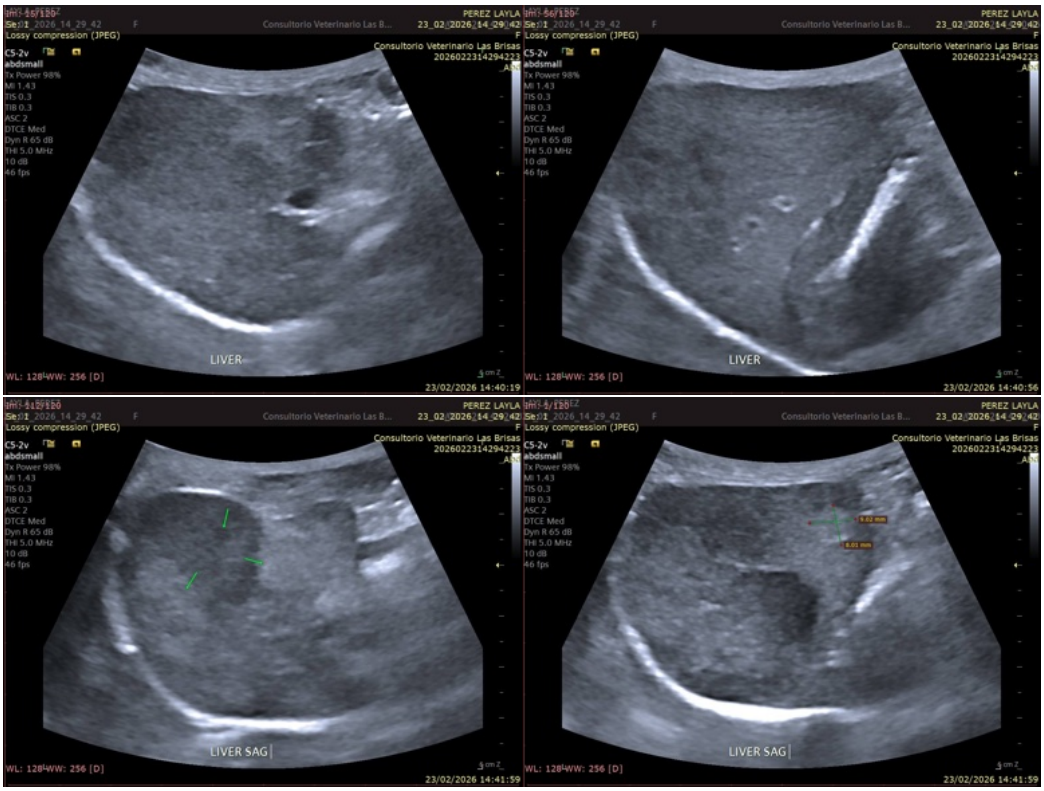
• Ultrasound-guided fine-needle aspiration of representative hepatic foci or hyperechoic areas may be considered as an initial minimally invasive step, understanding the limitations in diagnosing chronic hepatitis.

• If cytology is non-diagnostic and enzyme elevations persist or worsen, liver biopsy may be considered for definitive diagnosis and staging.

• Coagulation profile prior to any sampling procedure.

• Screening for hyperadrenocorticism is not strongly supported by the current ultrasonographic pattern, as the liver demonstrates structural nodular remodeling rather than the diffuse vacuolar changes typically associated with steroid hepatopathy. Additionally, the parallel elevation of ALT and ALP does not suggest a disproportionate steroid-induced enzyme pattern. Endocrine testing may be considered only if compatible clinical signs are present at the discretion of the attending clinician.

• Continue Denamarin pending further diagnostics.



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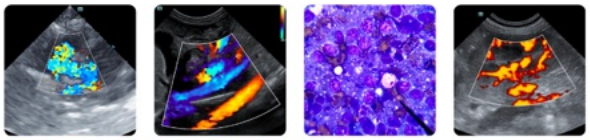

Clinical Sonography & Telecytology
Educational Teleconsultation Services™

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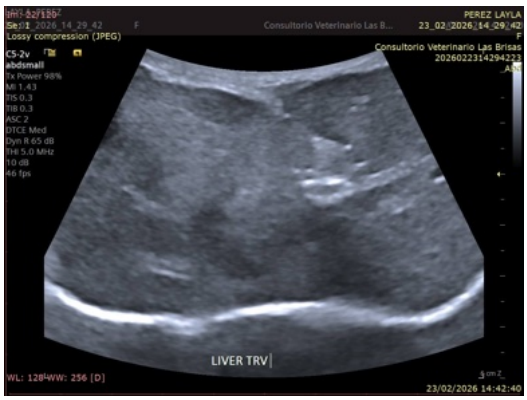

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Alicia Angosto Guerrero, DMV, PgDip, MSc.

MV Esp Ultrasound in Domestic and Wild Animals

info@SonoPath.com