



PATIENT

Delilah Distano

SPECIES

Canine

BREED

Chihuahua

SEX

Spayed Female

AGE

4 Years

WEIGHT

Not Provided

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

ACC Flanders

REFERRING VET

Dr. Hallihan

INVOICE

36539

DATE

3/29/22

PRESENTING CLINICAL SIGNS

Bile Acids= pre 78.6 and post 78.0, both high. ALT and AST elevated prior to bile acids test (BW was done for poss. dental) Current meds: Clavamox Drops 0.4ml BID, meloxidyl 1.5mg/ml
Abnormal PE/Chem/CBC/UA Results: Platelet Count 571, AST 95, ALT 178, BUN/Creat Ratio 30

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The right kidney measured 3.11 cm. The left kidney measured 2.92 cm.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 1.39 cm x 0.46 cm at the caudal pole and 0.42 cm at the cranial pole. The right adrenal gland measured 1.36 cm x 0.42 cm at the caudal pole and 0.43 cm at the cranial pole.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

Liver

Mild **microhepatica** was present, yet parenchyma was uniform. Vascular volume was normal.

Portal vein/vena cava ratio was 1:1. No evidence of portosystemic shunting.

Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.



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ULTRASONOGRAPHIC FINDINGS

- Mild microhepatica – likely portal hypoplasia/microvascular dysplasia.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of portosystemic shunting. Strict medical protocol warranted in this patient. Core liver biopsy necessary for further definition to confirm suspicion of portal hypoplasia/microvascular dysplasia. However, portal vein branching was evident. No intrahepatic or extrahepatic shunting present.

BREED

Chihuahua

Hepatic Support for Bile Acid Elevation +/- Hepatic Encephalopathy

Royal Canin Hepatic Support diet or Hills L/D, Metronidazole (7.5 mg/kg PO bid) over the next 14 days, Lactulose (Oral: 3.1-3.7 g/5 ml lactulose in a syrup base) long term to target 2-3 soft stools/day, with a high-quality protein supplement of minor amount of yogurt or cheddar cheese. Monitor bile acids, with attention paid to dropping albumin, BUN or cholesterol. SAME and nutraceuticals as needed. Ursodiol (10-15 mg/kg p.o. q24h) can be considered as hepatoprotectant and to enhance bile flow. Zinc serum level keep between 200–500 ug/dl. If deficient then Tx zinc acetate 1-3 mg/kg/day. Gastrointestinal protectants are recommended if the patient is anorexic.

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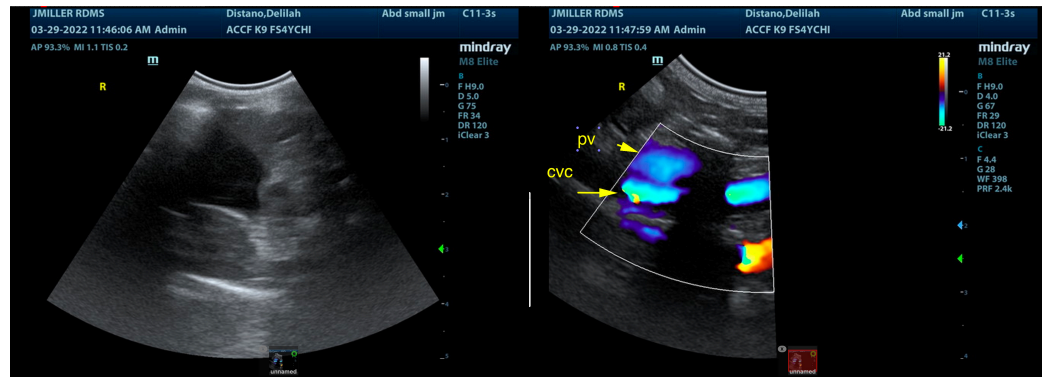
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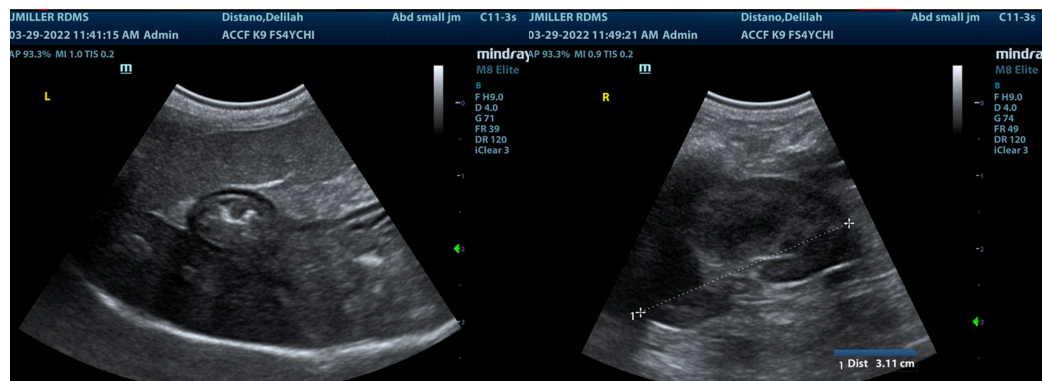
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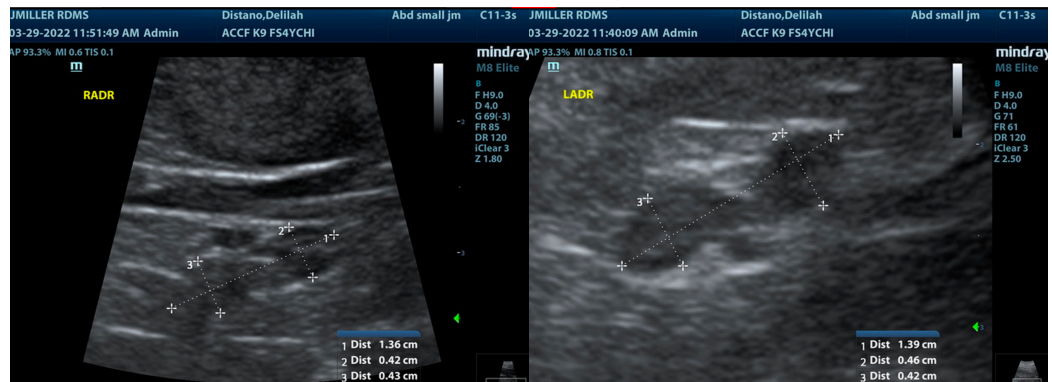
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com

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