

PATIENT

Danny Fleck

SPECIES

Canine

BREED

Chihuahua

SEX

MN

AGE

8 Years

WEIGHT

7 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Jenna Walsh

HOSPITAL NAME

Santa Clara Animal
Hospital

REFERRING VET

Dr Brian Zulauf

INVOICE

47410

DATE

9-17-21

PRESENTING CLINICAL SIGNS

Physical exam unremarkable
Abnormal PE/Chem/CBC/UA Results: Diagnosed at another clinic with a possible hepatopathy. ALT 168, ALP 60, GGT 0.0 Bile acids: pre - 5.4 , post 63

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths, calculi, or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 0.79 cm in diameter.

No evidence of pathology in the area of the aortic trifurcation.

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. No evidence of renomegaly or mineralization. The left kidney measured 3.6 cm in length. The right kidney measured 3.7 cm in length.

Adrenal Glands

The left adrenal gland exhibited mild prominent size with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.82 cm width at the caudal pole and 1.0 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.56 cm width at the caudal pole and 0.73 cm width at the cranial 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.

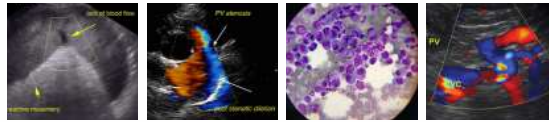
Liver

The liver was normal in size with subtle uniform increased hepatic parenchyma echogenicity with mild coarse echotexture. The hepatportal vasculature volume appeared to be normal. No hepatic masses or nodules noted. 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.

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.



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

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Pancreas

SPECIES

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.

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Free Abdomen

Chihuahua

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

SEX

- Low grade inflammatory hepatopathy - possible portal hypoplasia/microvascular dysplasia.
- Mildly prominent left adrenal gland - nonspecific.

MN

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

8 Years

No overt evidence of intrahepatic or extrahepatic shunt in this patient given the normal overall hepatic size and lack of renal and cystic mineral. Hepatic biopsy is necessary for further clarification as to whether low grade inflammatory hepatopathy or portal hypoplasia / microvascular dysplasia are present. Assuming normal BUN, glucose, cholesterol, and albumin levels, hepatic functionality is likely normal. The mildly prominent left adrenal gland is of unclear clinical significance and may be a patient variant. Screening blood pressure recommended.

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Some or all of the following protocol may be considered if clinically indicated.

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HepaticSupport 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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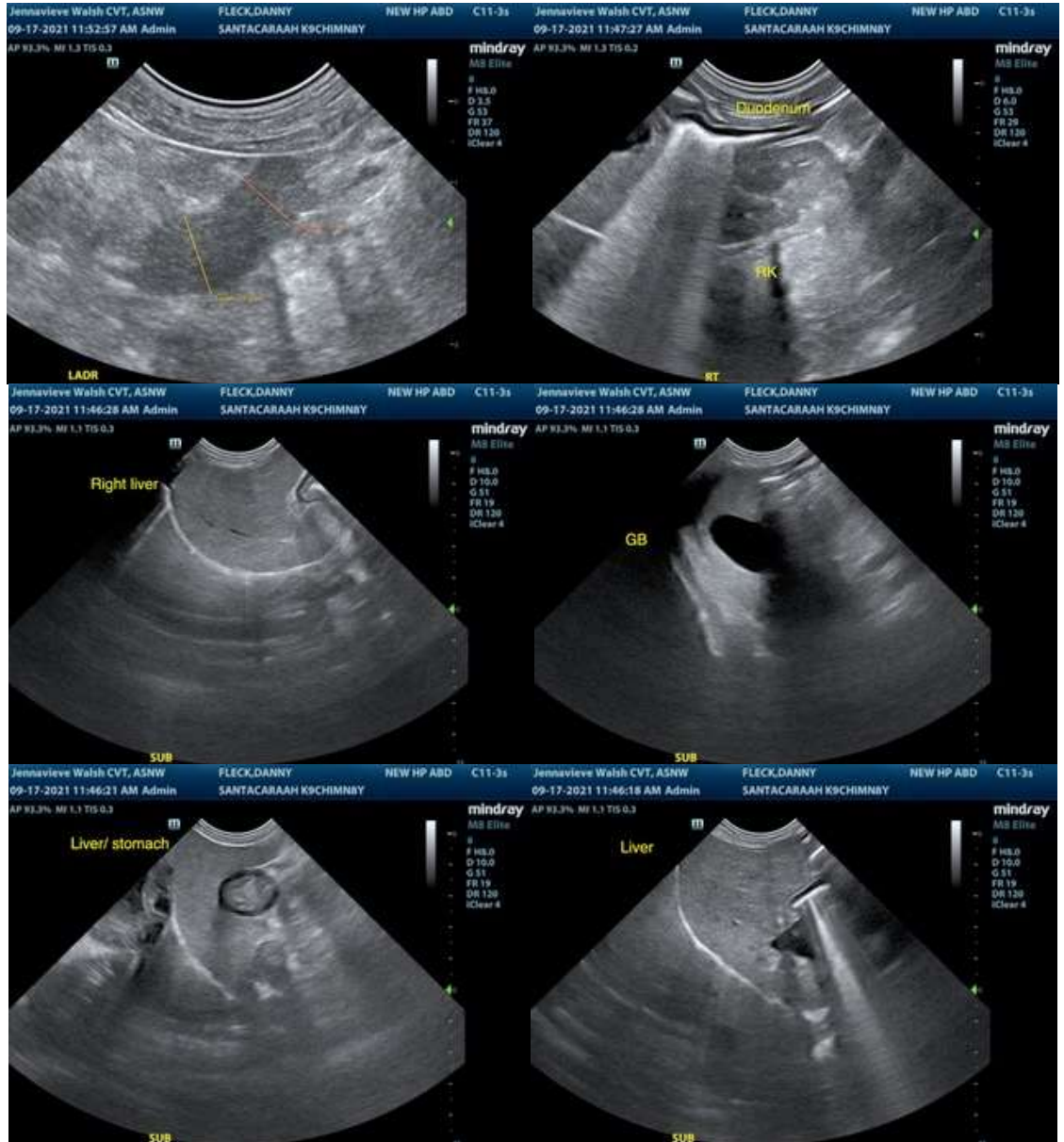
Dr Brian Zulauf

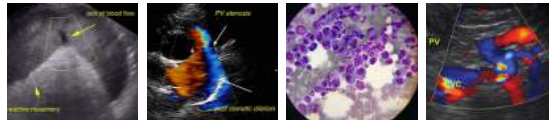
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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