

PATIENT PRESENTING CLINICAL SIGNS

Indy Skaggs

History: WGT: 6.17 lbs (2.8 kgs), BCS 5/9 BAR, TPR - wnl; CRT < 2 sec/pink, moist MM. COAT/INTEG: no lesions nor ectoparasites appreciated. EYES/EARS: OU WNL. AU clear. N/T: No nasal discharge, no sneezing, no cough on tracheal palpation. ORAL: healthy dentition. HEART/LUNGS: no murmurs nor arrhythmias, synchronous pulses, Lungs clear, No coughing. LN: peripheral LNs are normal in size, shape, consistency. GI/UG: soft nonpainful abdomen on palpation. only 1 scrotal testicle palpable today. left testicle appears to be abdominal. M/S: no lameness nor abnormalities appreciated. NEURO: appropriate mentation, no deficits appreciated, nor spinal pain.

SPECIES

Canine

BREED

Chihuahua Mix

Abnormal PE/Chem/CBC/UA Results: 9/4/21 - ALT 241 U/L (normal range 10-125). fasted bile acids 14.9 umol/L (0-14.9). post prandial bile acids 62.3 umol/L (0-29.9).

SEX

Intact Male

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

AGE

8 Months

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, sediment or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted. Aortic trifurcation was normal.

WEIGHT

6.17 Pounds

The prostate was of expected appearance and size for a young intact male canine, measuring 1.1 cm width.

Normal size and margination were 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 2.9 cm in length. The right kidney measured 3.4 cm in length.

INTERPRETED BY

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

Adrenal Glands

IMAGING PERFORMED BY

Jenna Walsh

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 1.4 cm length x 0.21 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 1.2 cm length x 0.27 cm width at the caudal pole.

HOSPITAL NAME

Banfield of South
Eugene

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.

REFERRING VET

Dr. Wright

Liver

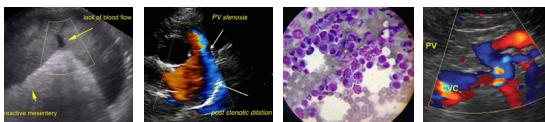
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13015

The liver was exhibiting potential for mild subnormal size. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal. The visualize portal vein was sonographically unremarkable with subjective normal branching at the level of the portohepatis. The caudal vena cava exhibited laminar flow and normal size without evidence of

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9/13/21



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turbulence. The portal vein measured approximately 0.45 cm width. By comparison, the caudal vena cava measured 0.56 cm width and the aorta measured 0.54 cm width.

Gastrointestinal

SPECIES

Canine

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.

BREED

Chihuahua Mix

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 formed feces in lumen.

SEX

Intact Male

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.

AGE

8 Months

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present. Confirmed caudal abdominal retained testicle-potential location adjacent to proximal inguinal canal. The retained testicle measured approximately 1.4 cm in diameter.

WEIGHT

6.17 Pounds

ULTRASONOGRAPHIC FINDINGS

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(Canine and Feline)

- Possible mild subnormal liver size yet overall normal architecture and subjective vascular volume
- Confirmed retained testicle

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

IMAGING PERFORMED BY

Jenna Walsh

No overt evidence of intrahepatic or extrahepatic shunting. Subjective normal portal vein branching and overall normal hepatic intravascular volume. In conjunction, no evidence of urinary bladder sediment or renal mineralization was present. Considerations in this case may include primary low-grade inflammatory hepatopathy or possible portal hypoplasia or microvascular dysplasia given the elevated postprandial bile acids <100.

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Surgical biopsy of the liver for further definition as to whether portal hypoplasia/microvascular dysplasia or primary hepatic parenchymal disease is present. This consideration may be pursued at the time of retained testicle removal. Empirically, some or all of the following protocol may be considered.

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Hepatic Support for Bile Acid Elevation +/- Hepatic Encephalopathy

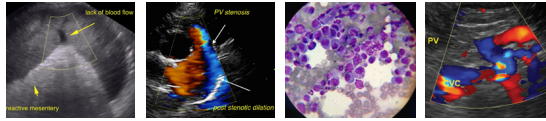
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Royal Canin Hepatic Support diet or Hills L/D, Metronidazole (7.5 mg/kg PO bid) over the next 14 days, **Lactulose** (Oral: 3.1-3.7 g/5 ml lactulose in a syrup base) long term to target 2-3 soft stools/day, with a **high-quality protein supplement** 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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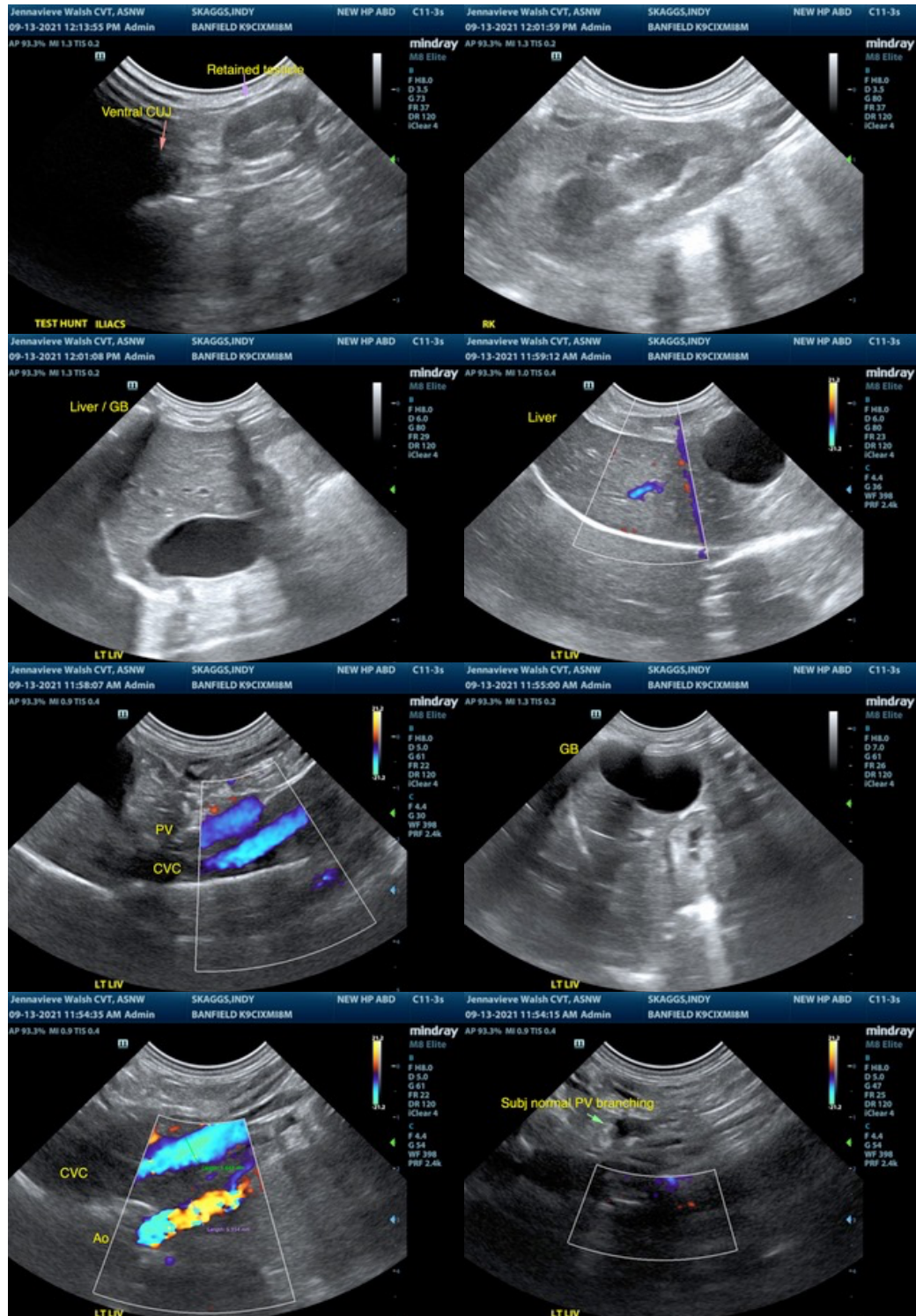
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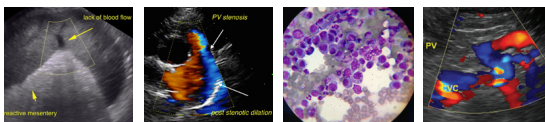
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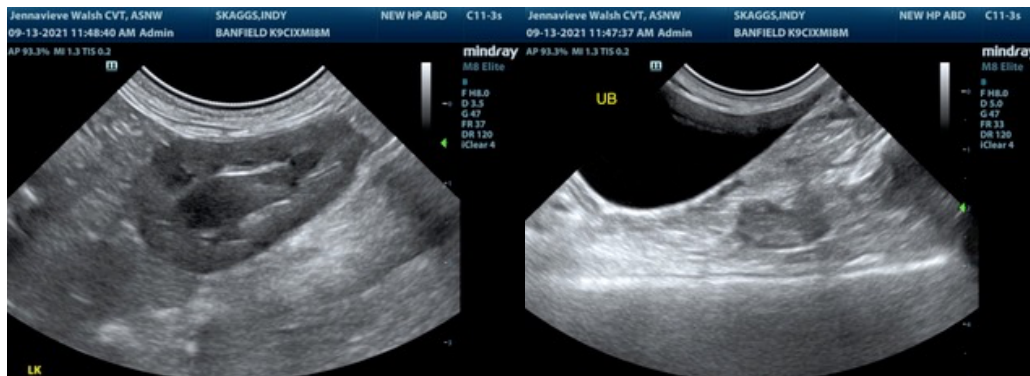
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

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