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Clinical Sonography & Telecytology
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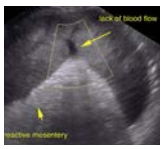
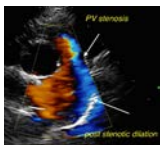
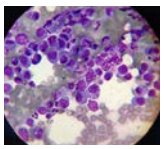
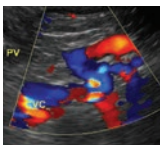

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Mini Bean Taylor

SPECIES
Canine

BREED
Chihuahua X

SEX
Spayed Female

AGE
3 Years 4 Months

WEIGHT
5.05 Pounds

INTERPRETED BY
Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY
Amanda Crook – SDEP Certified Clinical Sonographer

HOSPITAL NAME
Rivers Edge Pet Medical Center

REFERRING VET
Dr. Jason Christensen

INVOICE
33896

DATE
12/31/21

PRESENTING CLINICAL SIGNS

O was coming in for routine dental care, O had not noticed any concerns. Animal is picky with food. Abnormal PE/Chem/CBC/UA Results: ALT 248 I/U BUN/Creat Ratio Elevated Bile acids-pre 61 umol/L; post 21 umol/L

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 left kidney measured 2.97 cm. The right 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 right adrenal gland measured 1.3 cm x 0.84 cm at the cranial pole and 0.30 cm at the caudal pole. The left adrenal gland measured 1.3 cm x 0.44 cm at the cranial pole and 0.31 cm at the caudal 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

The **liver** was mildly subnormal in size. Intrahepatic vascular volume and pattern appeared normal. The gallbladder was unremarkable. Portal vein/vena cava ratio was 1:1. Portal vein measured 0.33 cm. The portal vein was followed to its branching.

Gastrointestinal

Minor fluid filled **gastric** lumen present. The small intestine and colon were unremarkable.

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.

ULTRASONOGRAPHIC FINDINGS

- Mild microhepatica, no evidence of extrahepatic or intrahepatic shunting

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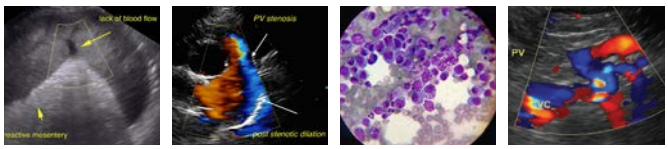

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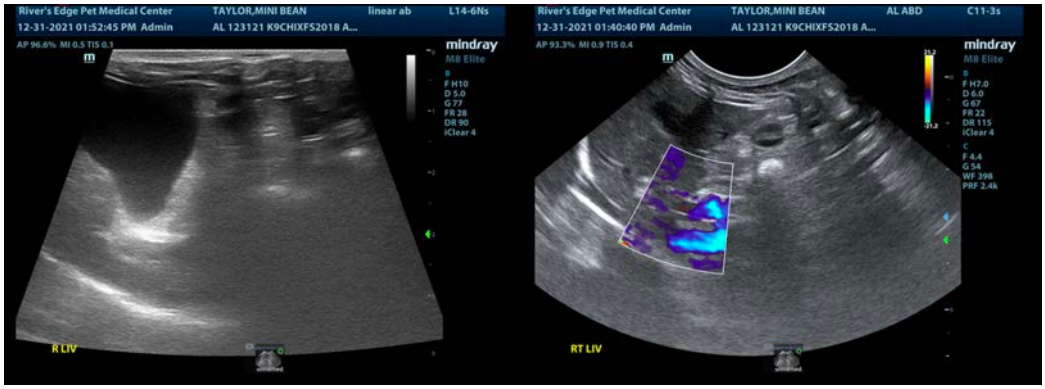
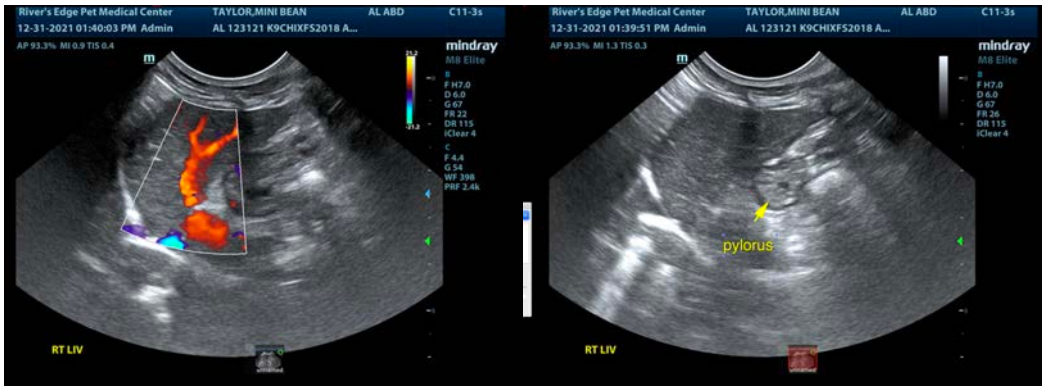
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Portal hypoplasia/microvascular dysplasia is possible. Core liver biopsy either from a surgical or ultrasound guided standpoint would be necessary. A clinical trial of the following could be considered. No overt contraindication to anesthetic procedure. Torbutrol pre-med, Propofol induction, Isoflurane maintenance suggested. Concurrent low-grade inflammatory hepatopathy likely. Given the hyporexia in this patient and minor fluid filled gastric lumen, low-grade gastritis may also be playing a role in the patient history. 10-14 day treatment with the following protocol would be ideal prior to dental procedure if necessary.

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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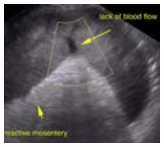
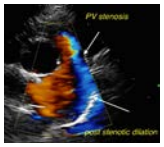
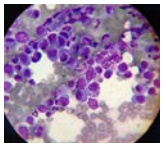
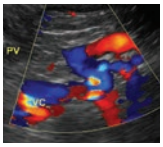

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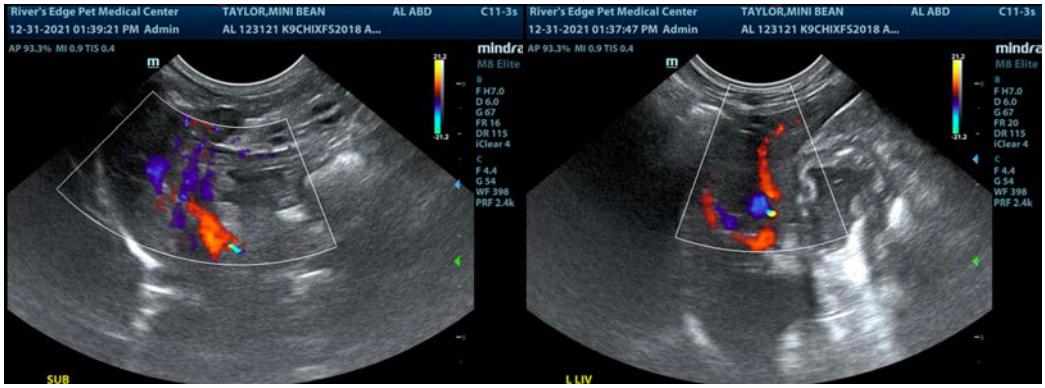

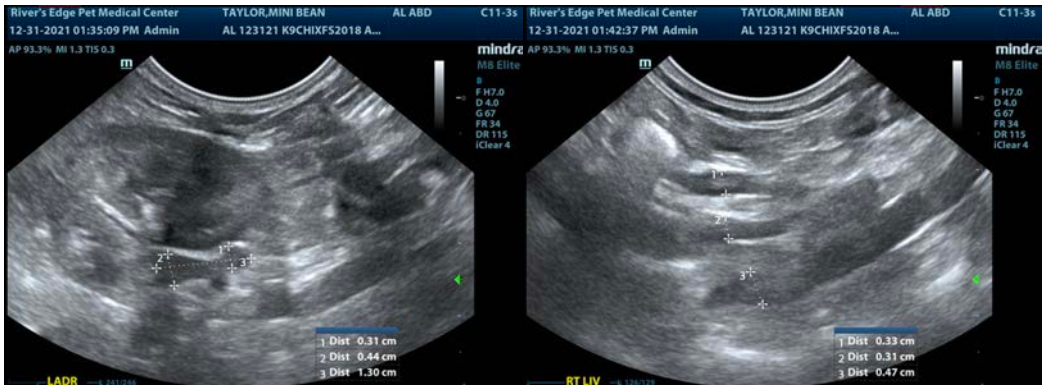

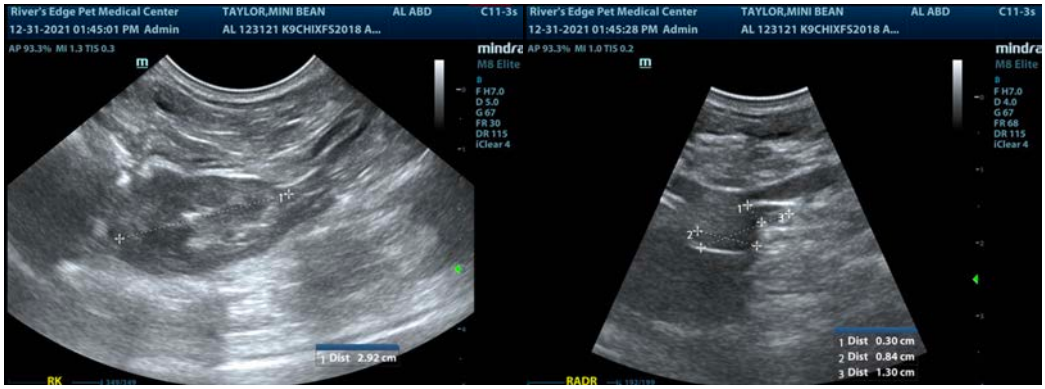

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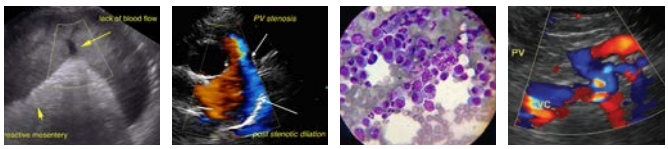

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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
info@SonoPath.com