



PATIENT PRESENTING CLINICAL SIGNS

PATIENT Marli Crowl
Presented 7/25 for lethargy, vomiting and inappetence then again 8/1 for not improving after empirical tx; hypoglycemia and small size compared to litter mates - labwork shows elevated bile acids and hypoglycemia

SPECIES

Canine

Abnormal PE/Chem/CBC/UA Results: See attached - 7/25 Chem: Gluc 25, Ca 7.7, Amyl 379, K 2.9, Cl 102, (spot BG later on 27) CBC: Neu 14.04, Mono 1.14, Eos 0.01, Plt 595, PCT 0.60, 8/1 Bile acids pre (elevated) at 62.4, post (elevated) at 102.7 8/2 Pt/PTT normal

BREED

Pom x Chi

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

SEX

Urinary System

Spayed Female

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 pelvic urethra was imaged 1.0 cm beyond the cystourethral junction.

AGE

2020

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 2.38 cm. The right kidney measured 2.82 cm.

WEIGHT

2.7 Pounds

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

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 1.05 cm x 0.32 cm at the caudal pole and 0.36 cm at the cranial pole. The right adrenal gland measured 1.8 cm x 0.50 cm.

IMAGING PERFORMED BY

Amanda Crook - SDEP
Certified Clinical
Sonographer

Spleen

The **spleen** in this patient was uniform, yet volume contracted. Hydration status should be assessed.

HOSPITAL NAME

Rivers Edge PMC

Liver

The **liver** was mildly subnormal in size. Intrahepatic vascular volume appeared to be subjectively normal. The gallbladder was unremarkable. Portal vein revealed normal branching and size and 5.0 mm. Portal vein to vena cava ratio was 1:1.

REFERRING VET

Dr. David Grey

Gastrointestinal

INVOICE

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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.

DATE

8/3/23



PATIENT *Pancreas*

Marli Crowl

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.

SPECIES

Canine

ULTRASONOGRAPHIC FINDINGS

BREED

- Minor microhepatica
- Volume contracted spleen

Pom x Chi

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

SEX

Spayed Female

Given the bile acid elevations, portal hypoplasia suspected possibly complicated by acute phase disease, or transient elevation of bile acids. No obvious portosystemic shunt. Core liver biopsy or surgical liver biopsy would be necessary for definitive diagnosis.

AGE

2020

Hepatic Support for Bile Acid Elevation +/- Hepatic Encephalopathy

WEIGHT

2.7 Pounds

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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Radiographs: largely unremarkable.

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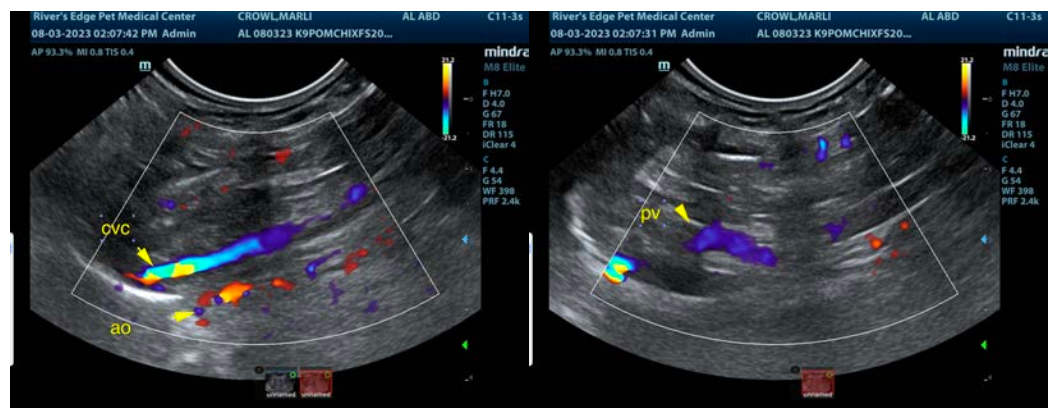
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DATE

8/3/23





PATIENT

Marli Crowl

SPECIES

Canine

BREED

Pom x Chi

SEX

Spayed Female

AGE

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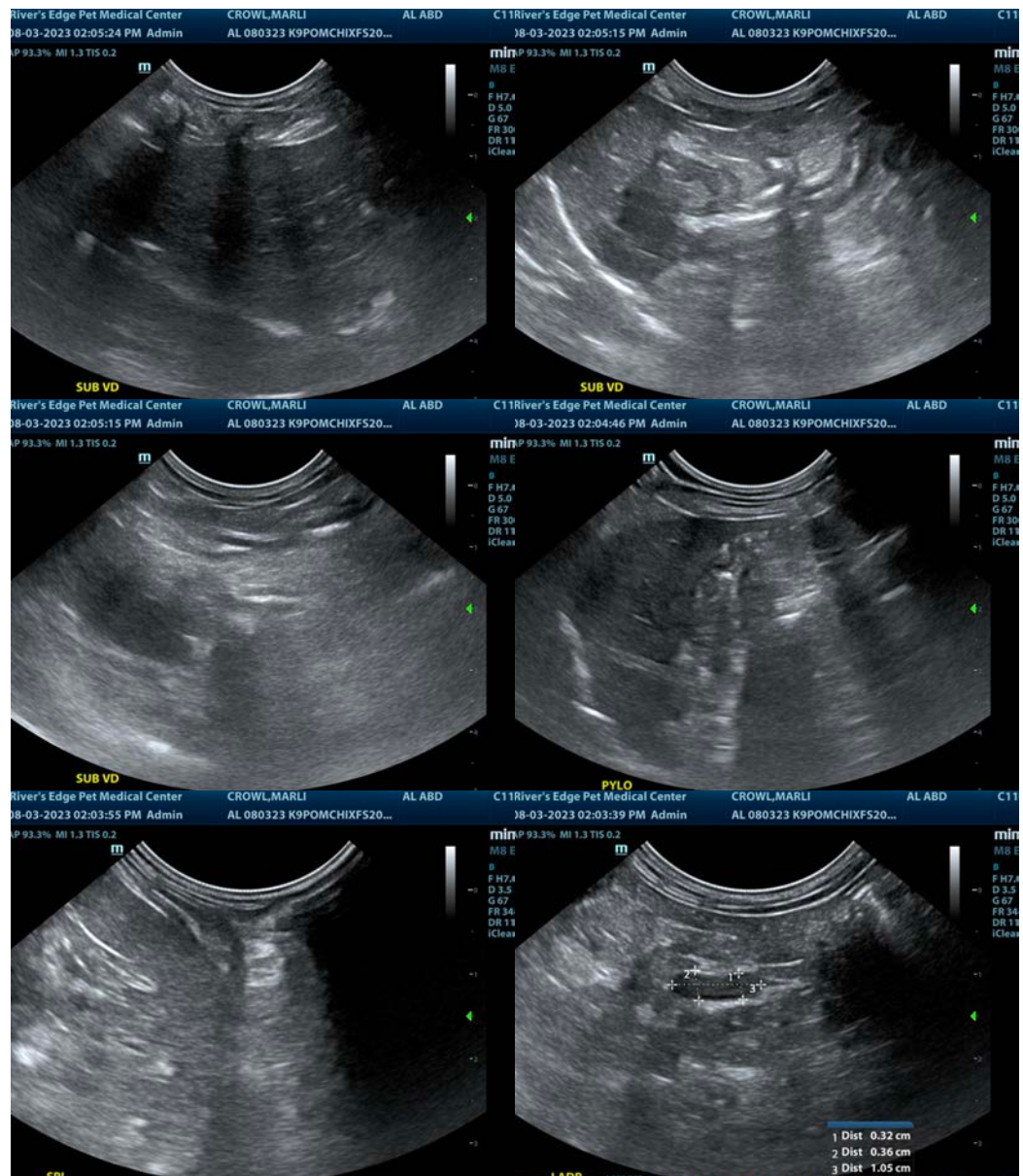
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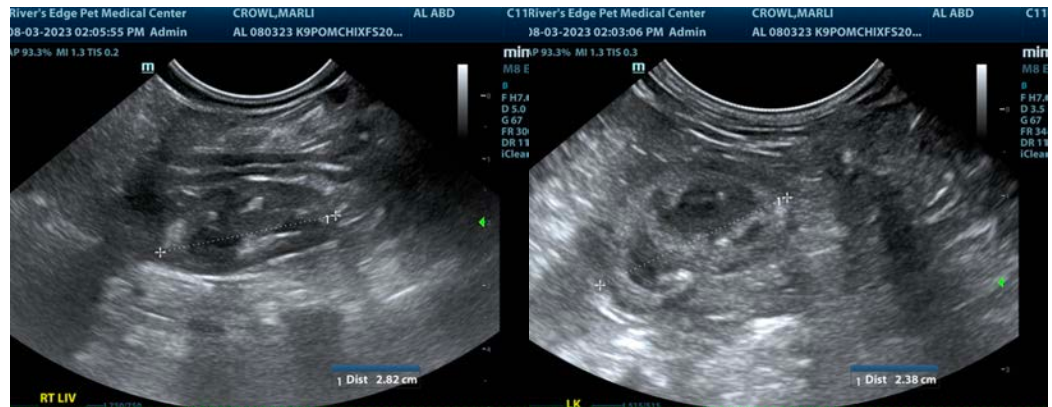
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DATE

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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.

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