



PATIENT

Nolie Craig

PRESENTING CLINICAL SIGNS

Presented for dental. ALT elevated 147, bile acids elevated pre 2.8 and post 69.5.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

BREED

Poodle

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 was noted. Ureteral papillae were normal.

SEX

Spayed female

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 3.33 cm. The right kidney measured 3.23 cm.

AGE

5 years

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 1.5 x 0.4 cm. The right adrenal gland measured 1.3 x 0.47 cm at the cranial pole and 0.28 cm at the caudal pole.

IMAGING PERFORMED BY

Eric Lindquist, DMV
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Spleen

HOSPITAL NAME

Ringwood AH

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 was noted.

REFERRING VET

Dr. Willies

Liver

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The **liver** was mildly subnormal in size with normal intrahepatic volume. The hepatic parenchyma was uniform with no evidence of structural pathology other than microhepatica. The portal vein to vena cava ratio was 1:1. The portal vein measured 0.54 cm and the vena cava measured 0.55 cm and the aorta measured 0.55 cm. The gallbladder and common bile duct were unremarkable.

DATE

4/25/23

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



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demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

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SPECIES

Pancreas

Canine

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.

BREED

Poodle

ULTRASONOGRAPHIC FINDINGS

SEX

Minor microhepatica. No evidence of intrahepatic or extrahepatic shunting.

Spayed female

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

AGE

There was no evidence of intrahepatic or extrahepatic shunting. However, portal hypoplasia/microvascular dysplasia may be an issue and would necessitate a liver biopsy. However, medical management should prove adequate such as the following. Medical management is warranted. I strongly recommend avoiding acute phased disease regarding the GI and pancreatic organs as they will secondarily affect the liver function.

5 years

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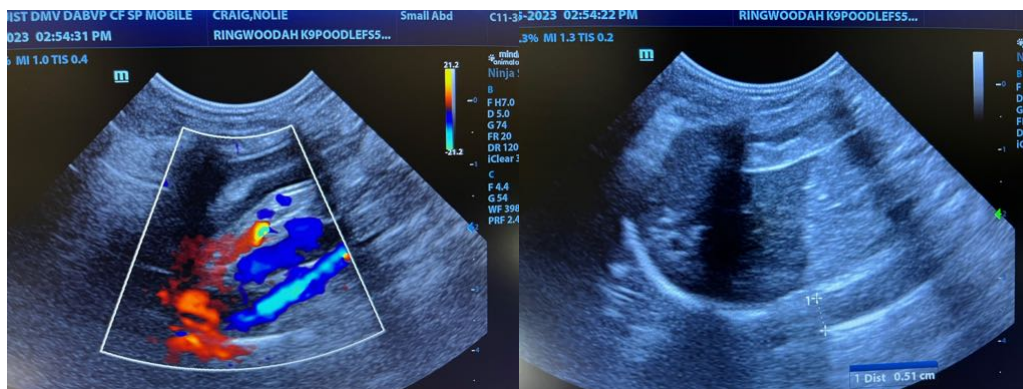
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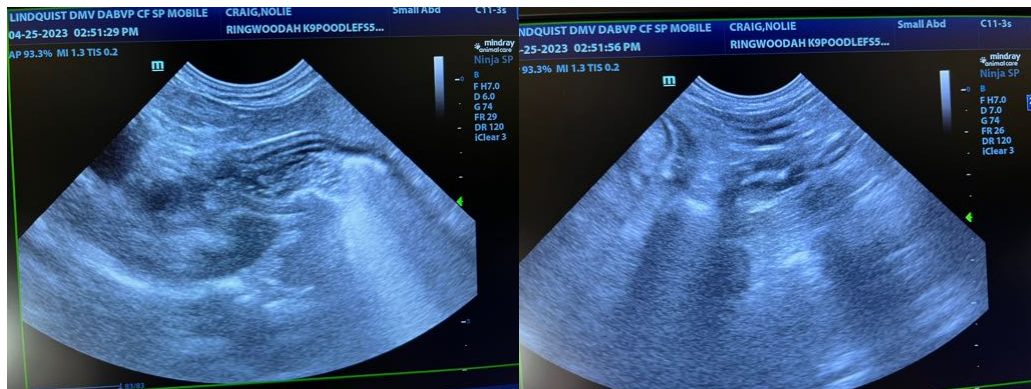
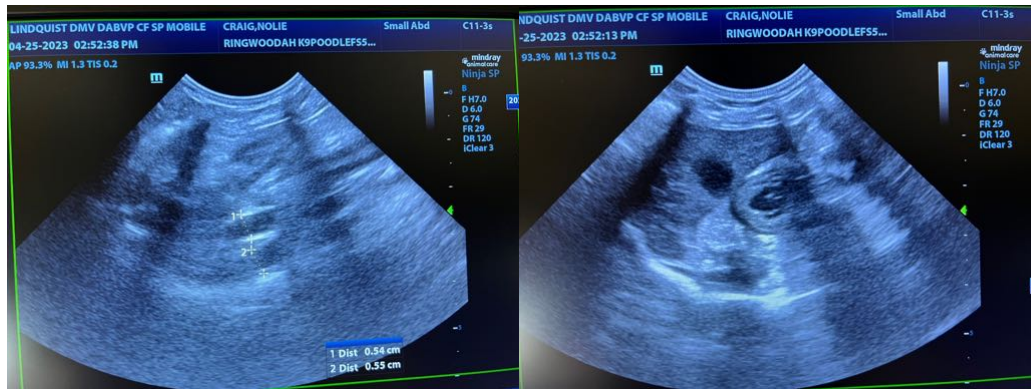
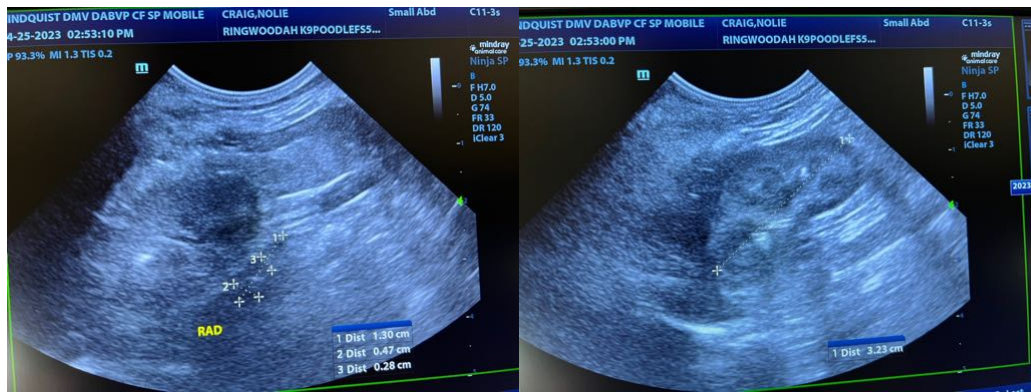
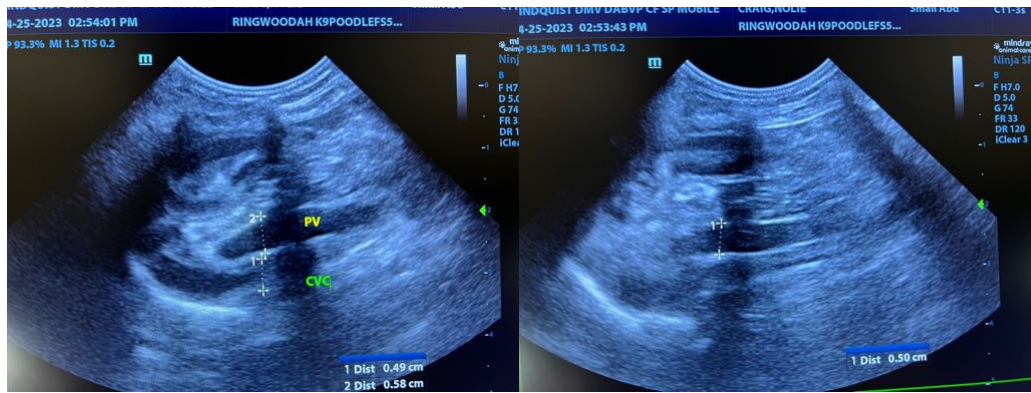
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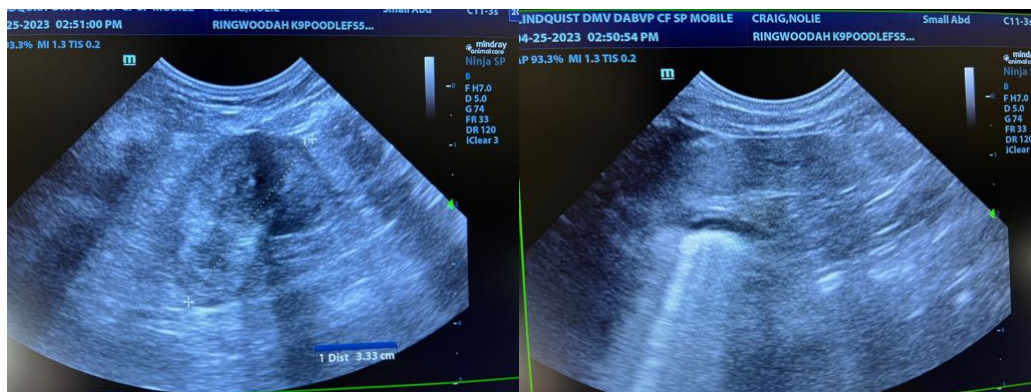
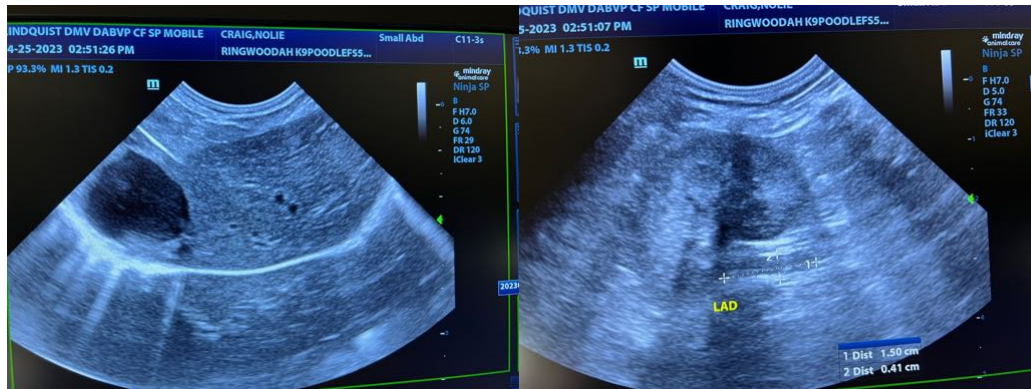
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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Info@SonoPath.com