



**PATIENT**

Kayla Monker

**SPECIES**

Canine

**BREED**

West Highland Terrier

**SEX**

Spayed Female

**AGE**

13 years

**WEIGHT**

19.3 lbs

**INTERPRETED BY**

Eric Lindquist, DMV,  
DABVP, Cert. IVUSS,  
CEO of SonoPath.com

**IMAGING  
PERFORMED BY**

Kelly Vazquez, CVT

**HOSPITAL NAME**

Pompton Lakes AH

**REFERRING VET**

Dr. McConnell

**INVOICE**

30071

**DATE**

5/3/22

**PRESENTING CLINICAL SIGNS**

Patient presents for chronic hypoglycemia, shaking episodes; concern for insulinoma vs. other. Patient being given Caro syrup at home to keep sugars up.  
Abnormal PE/Chem/CBC/UA Results: Spot BG today 37, gave 3ccs of Dextrose and food (Glycobalance), 15 mins after BG was 41 - serum panel pending.

**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. A 0.5 cm calculus was noted and was non-obstructive at the time of the sonogram. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for this age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. Mineralization was noted in the kidneys. The right kidney measured 4.42 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 left adrenal gland measured 1.22 x 0.47 cm at the caudal pole and 0.28 cm at the cranial pole. The right adrenal gland measured 1.69 x 0.48 cm at the caudal pole and 0.47 cm at the cranial 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 was noted.

**Liver**

The **liver** was mildly subnormal in size with increased portal markings and coarse architecture. The portal vein measured 0.8 cm and was mildly enlarged. The gallbladder and common bile duct were unremarkable.



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**Gastrointestinal**

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The **stomach** revealed a 1.4 cm progressively shadowing material. This may be medications or similar and was surrounded by chyme. The pylorus was patent with no evidence of pathology. Transit of chyme into the duodenum appeared normal. The small intestines and colon were unremarkable.

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**Pancreas**

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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.

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**ULTRASONOGRAPHIC FINDINGS**

Undulating hepatic contour was normal. Subnormal hepatic size. Enlarged portal vein, possible emerging portal hypertension. There was no evidence of portosystemic shunting. Small bladder and renal calculi.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**WEIGHT**

19.3 lbs

Bile acid profile is warranted along with eventual cystotomy, stone analysis +/- liver biopsy could be considered. If the patient has had any upper GI signs then the pyloric material may be causing obstruction or irritation. The cause of hypoglycemia is not evident then no obvious insulinoma is present, but insulin glucose ratio is recommended. Assessment for possible xylitol toxicity is recommended. CT with contrast would be ideal to assess for small insulinomas as they can be not overtly visualized on ultrasound. Early liver dysfunction may also be playing a role in the hypoglycemia. If eventual cystotomy is to be performed ultrasound should be performed just prior to surgery to ensure that the small calculi are still present as this patient evacuate them on her own.

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For an additional charge an internal medicine consult can be utilized through [Sonopath.com](http://sonopath.com). You can select the internal medicine drop down at <http://spa.sonopath.com/>.

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One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. <https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services>

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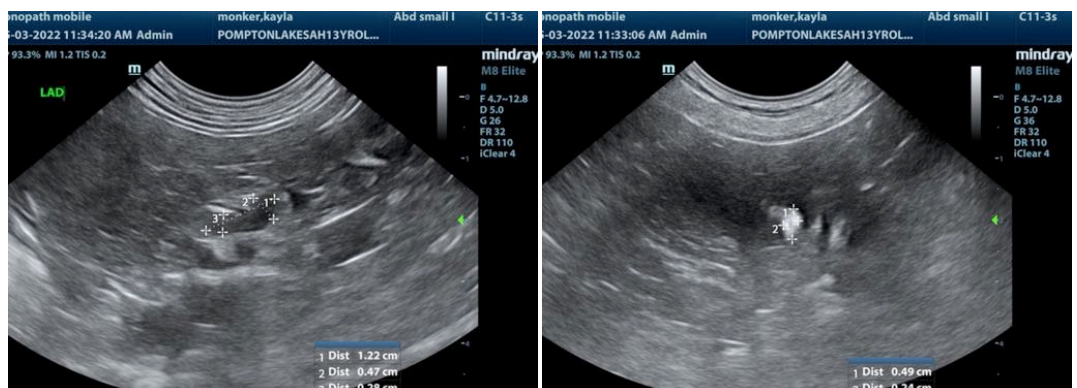
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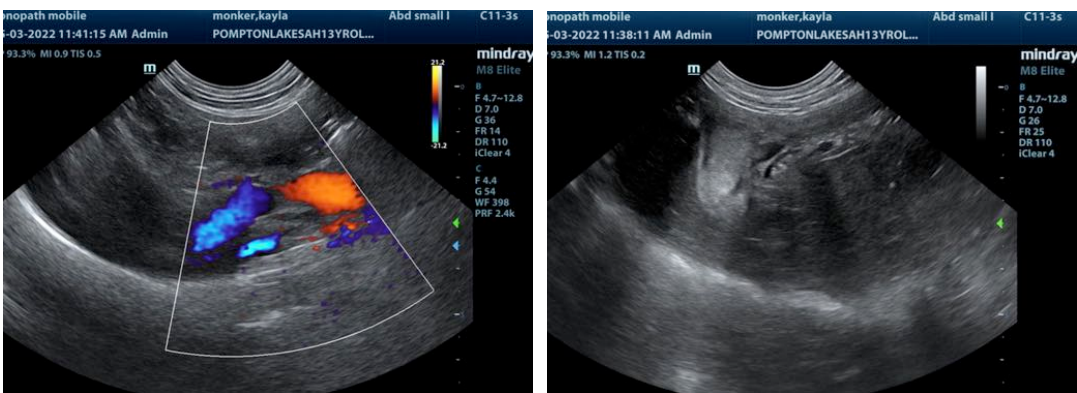
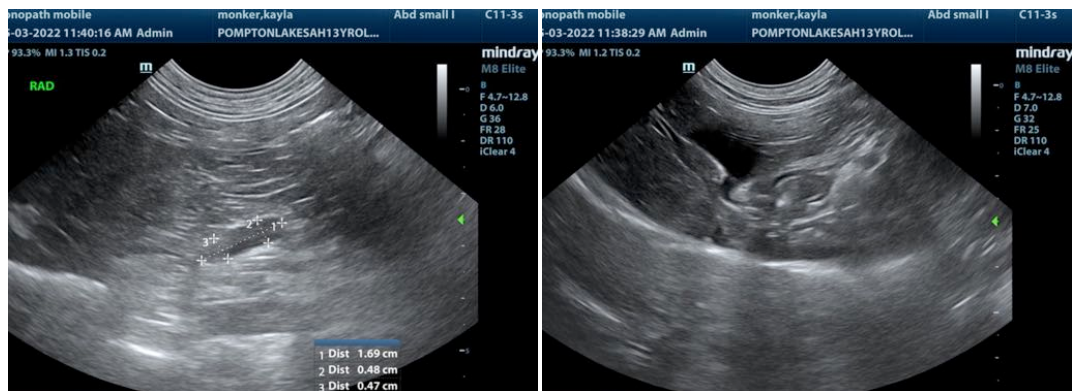
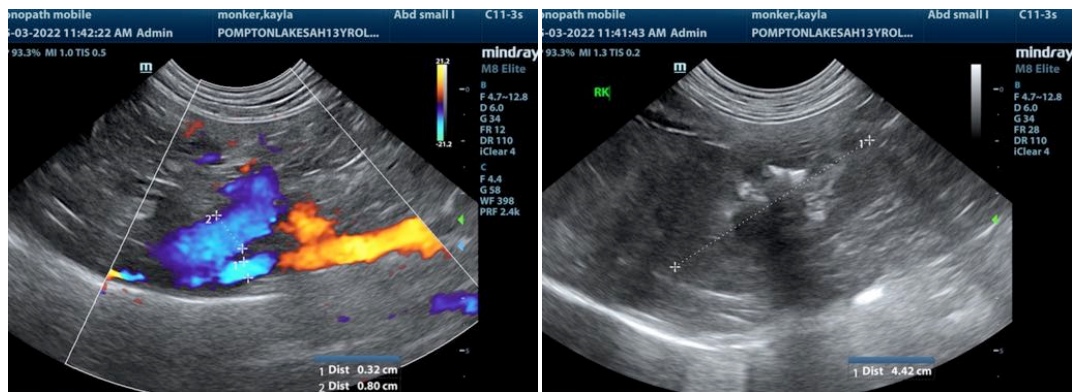
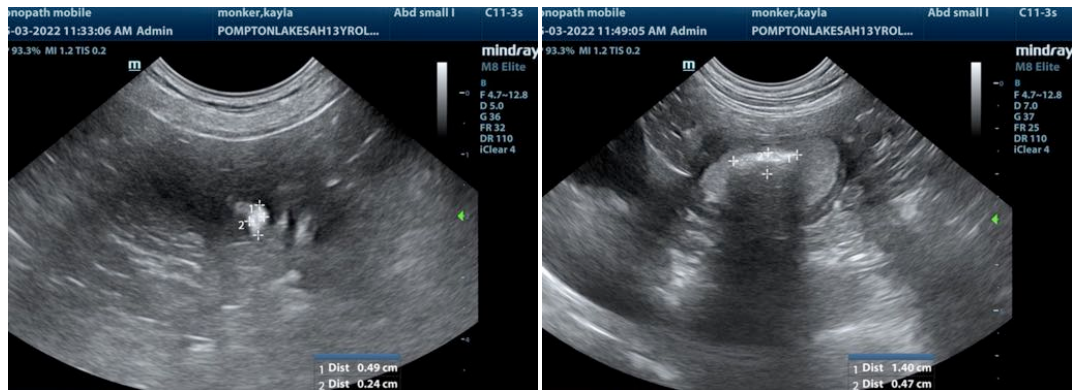
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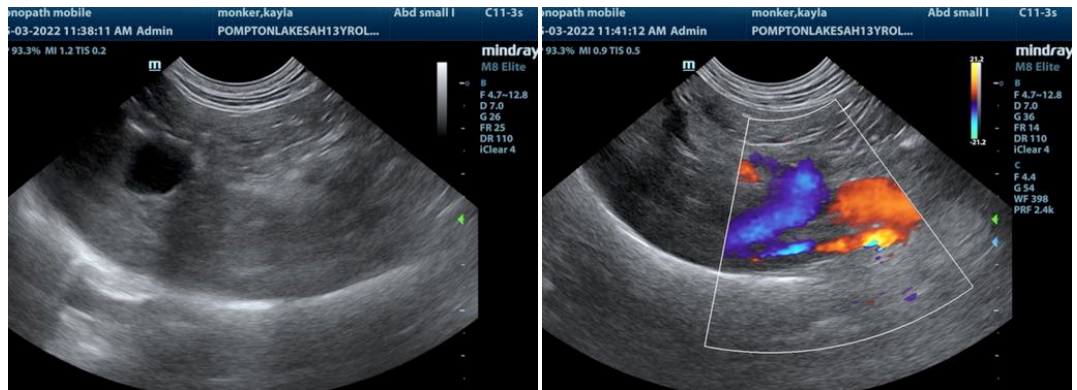
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com

Info@SonoPath.com