



PATIENT PRESENTING CLINICAL SIGNS

Olive Aitken

History: elevated bile acids, elevated liver enzymes on BW done at another clinic earlier in Aug, needs to be spay, concern for possible shunt, history of UTIs when she was a puppy
Abnormal PE/Chem/CBC/UA Results: Bile Acids post 37 (0-29.9)

SPECIES

Canine

BREED

Shih Tzu

SEX

Intact female

AGE

1 years

WEIGHT

11.6 lbs

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 was 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 4.09 cm. The right kidney measured 4.13 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 1.75 x 1.14 cm at the cranial pole and 0.43 cm at the caudal pole. The left adrenal gland measured 1.77 x 0.43 cm at the caudal pole and 0.25 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** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. The portal vein to vena cava ratio was 1:1. There was no evidence of portosystemic shunting. The portal vein measured 0.7 cm, vena cava 0.7 cm and aorta 0.7 cm. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Kelly Reshny, RVT

HOSPITAL NAME

Beamsville AH

REFERRING VET

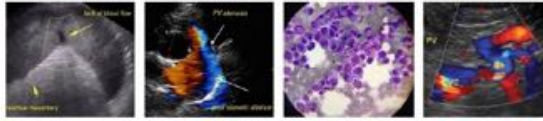
Dr. Hagar

INVOICE

32520

DATE

8/24/22



PATIENT *Gastrointestinal*

Olive Aitken

There was some residual chyme and gas was noted in the **stomach**, yet not pathological. This is consistent with end post prandial presentation. Transit of chyme into the small intestine was normal. Curvilinear patterns were maintained throughout the GI tract. No evidence of pathology. 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.

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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.

SEX

Intact female

ULTRASONOGRAPHIC FINDINGS

AGE

1 years

Normal abdomen.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

WEIGHT

11.6 lbs

There was no evidence of urinary or hepatic pathology. Portal hypoplasia/microvascular dysplasia could be present and would necessitate core biopsy for diagnosis. However, structurally the liver appears normal in architecture and vascularity. Spurious elevation of bile acids may be playing a role. Recheck of bile acid profile is recommended in a month. If the bile acids remain elevated and an ovariohysterectomy is to be performed then a liver biopsy can be taken at that time. There is no reproductive pathology noted.

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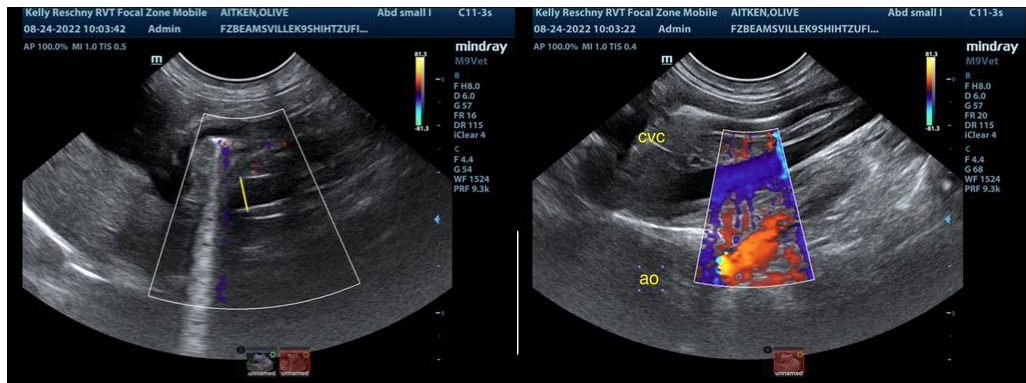
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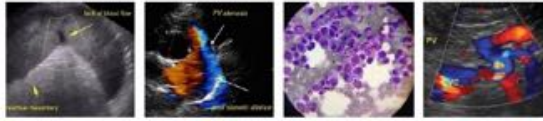
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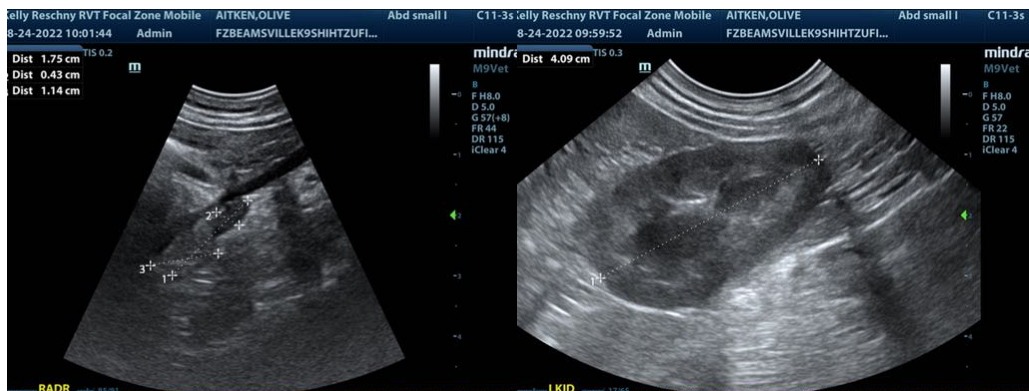
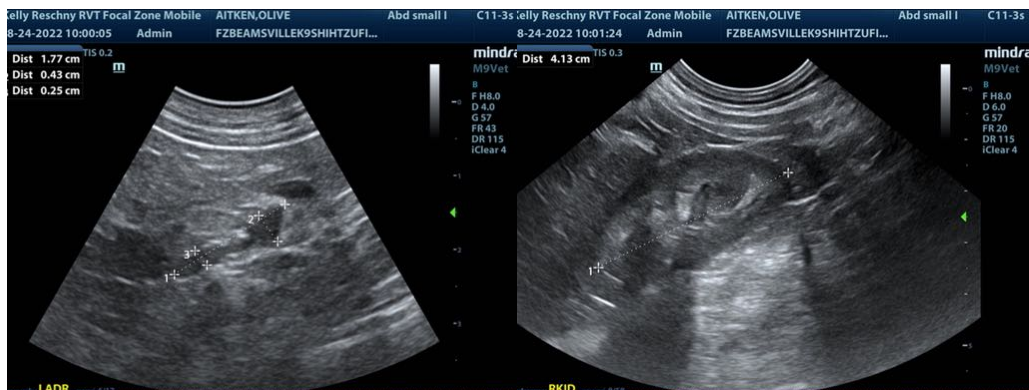
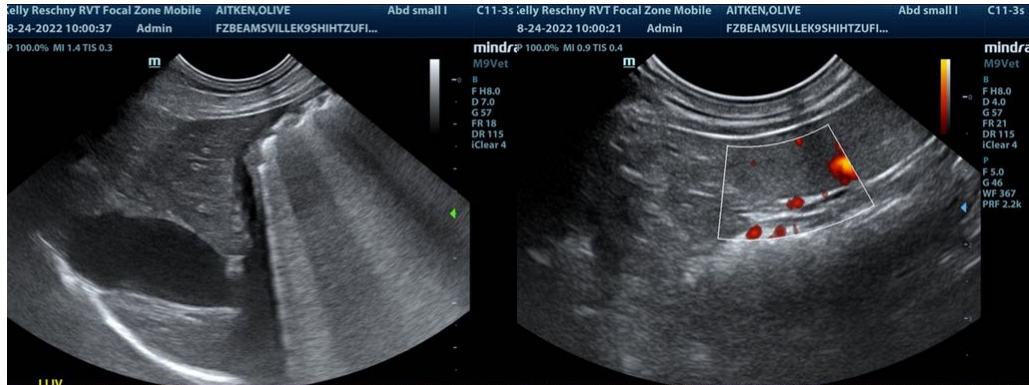
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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
Eric.Lindquist@SonoPath.com