



PATIENT

Vyolett Sophia
Alvarado

SPECIES

Canine

BREED

Chihuahua

SEX

Spayed female

AGE

1 year

WEIGHT

2.4 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Ferrer

HOSPITAL NAME

Pulse Pet Ultrasound
Services

REFERRING VET

Dra. Ana Colon Norat

INVOICE

69941

DATE

1/7/26

PRESENTING CLINICAL SIGNS

History: Presented as a referral for an abdominal ultrasound to evaluate elevated liver enzyme. Pt has been having elevated ALT since Sept 2025. Pt has not been clinical and acting normal at home. Bloodwork attached as supporting document. Sept 2025: 161 Jan 2026: 270

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 right kidney measured 3.0 cm. The left kidney measured 2.45 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 1.1 x 0.3 cm at the cranial pole and 0.31 cm at the caudal pole. The right adrenal gland measured 1.04 x 0.33 cm at the caudal pole and 0.28 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. The spleen measured 0.73 cm.

Liver

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder revealed a minor amount of coalesced bile.



PATIENT

Vyolett Sophia
Alvarado

SPECIES

Canine

BREED

Chihuahua

SEX

Spayed female

AGE

1 year

WEIGHT

2.4 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Ferrer

HOSPITAL NAME

Pulse Pet Ultrasound
Services

REFERRING VET

Dra. Ana Colon Norat

INVOICE

69941

DATE

1/7/26

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

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

Structurally normal liver, normal vascularity.

Non-specific, low-grade, inflammatory hepatopathy without structural changes, likely reactive hepatopathy.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There was no evidence of macroscopic shunting. FNA of the liver can be considered for further definition.

The hepatic clinical sonographic presentation is most consistent with Reactive Hepatopathy which is the most common cause of liver enzyme elevation in dogs and cats. The presumption is that gut and other organ antigen stimuli may be causing a low-grade immune response through portal system with which the liver is reacting to causing low-grade enzyme elevations. US-guided FNA could be performed to assess if low grade lymphoplasmacytic inflammation is present that would support this theory. If FNA is performed, please ask the cytologist to emphasize the primary inflammatory cell type. Empirical treatment measures to address this issue can include diet change to hydrolyzed diet, probiotics, deworming, nutraceuticals (SAME, Actigall...), dental exam and cleaning, and potentially antibiotics such as Clavamox. Metronidazole and Tylosin have traditionally been utilized for this purpose but new studies show that both these antibiotics can disrupt the normal intestinal bacterial flora (intestinal dysbiosis) for weeks and up to 4-6 months. Therefore, Metronidazole and Tylosin should be utilized as a last resort if other efforts have not been effective and sonographic organ appearance remains benign.



PATIENT

Vyolett Sophia
Alvarado

SPECIES

Canine

BREED

Chihuahua

SEX

Spayed female

AGE

1 year

WEIGHT

2.4 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

**IMAGING
PERFORMED BY**

Dr. Ferrer

HOSPITAL NAME

Pulse Pet Ultrasound
Services

REFERRING VET

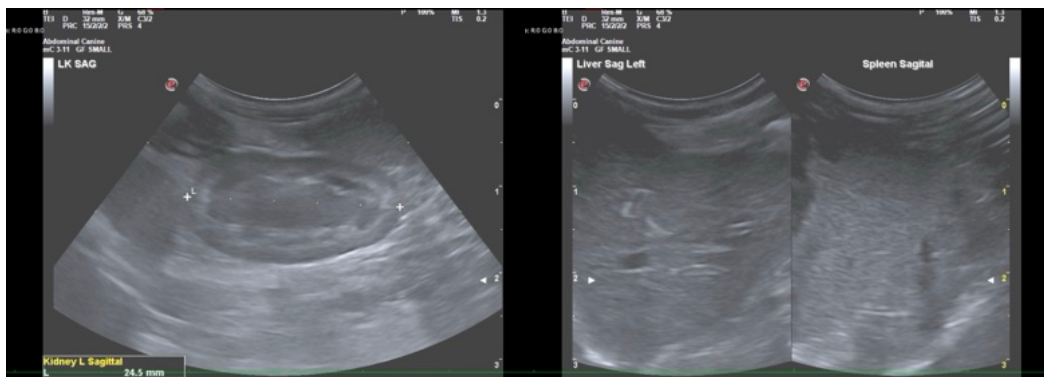
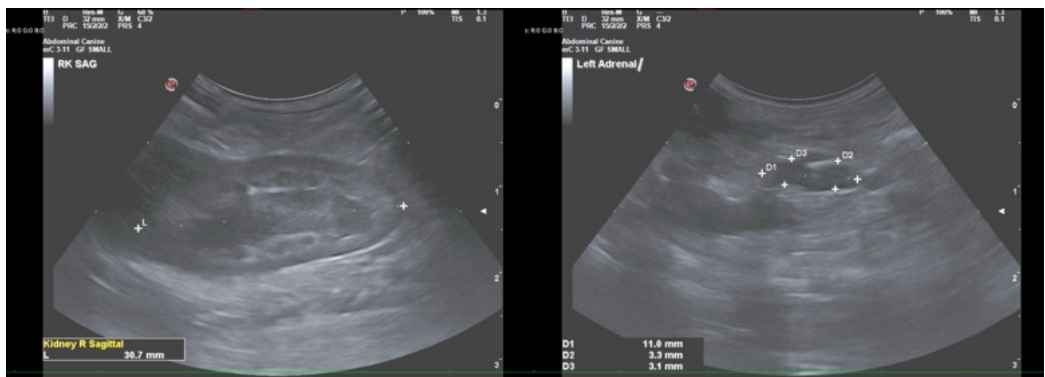
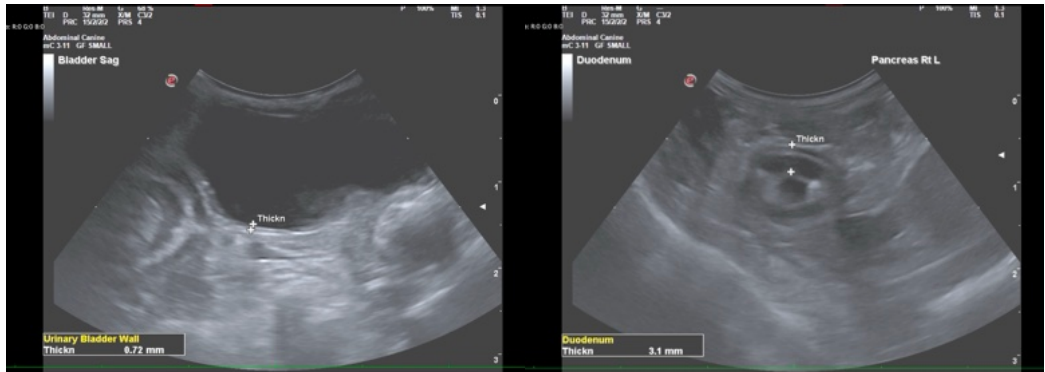
Dra. Ana Colon Norat

INVOICE

69941

DATE

1/7/26





PATIENT

Vyolett Sophia
Alvarado

SPECIES

Canine

BREED

Chihuahua

SEX

Spayed female

AGE

1 year

WEIGHT

2.4 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Ferrer

HOSPITAL NAME

Pulse Pet Ultrasound
Services

REFERRING VET

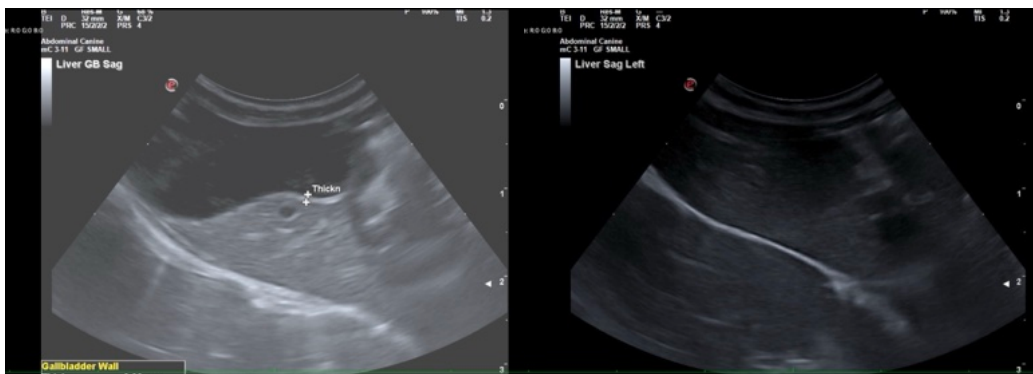
Dra. Ana Colon Norat

INVOICE

69941

DATE

1/7/26



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 (CFM), Cert. IVUSS, CEO of SonoPath.com

info@SonoPath.com