



PATIENT

Lolita Arocho

SPECIES

Canine

BREED

Chihuahua

SEX

Female

AGE

2 years

WEIGHT

5.4 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dra. Alvarado

HOSPITAL NAME

Ramey VH

REFERRING VET

Dra. Alvarado

INVOICE

76058

DATE

7/11/23

PRESENTING CLINICAL SIGNS

History: Patient have record here with us since January 2022. Since her first visit she have had her liver enzymes high. We have given her treatment for that but there have not been any change. The only history that we have is that patient ate a battery a long time ago.

Abnormal PE/Chem/CBC/UA Results: CHEM: Usually goes from 253 U/L to 419 U/L

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 3.28 cm. The left kidney measured 3.13 cm.

Adrenal Glands

The **adrenal glands** are not visualized.

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. Vascular and biliary tracts were of normal volume with no evidence of congestion. There is no evidence of portosystemic shunting. The gallbladder presented acceptably thin walls with primarily anechoic content. The imaged are dark; however, globally the hepatic parenchyma was unremarkable.

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



PATIENT

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

Lolita Arocho

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

Chihuahua

ULTRASONOGRAPHIC FINDINGS

SEX

Structurally unremarkable liver and abdomen, likely reactive hepatopathy.

Female

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

AGE

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.

2 years

WEIGHT

5.4 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dra. Alvarado

HOSPITAL NAME

Ramey VH

REFERRING VET

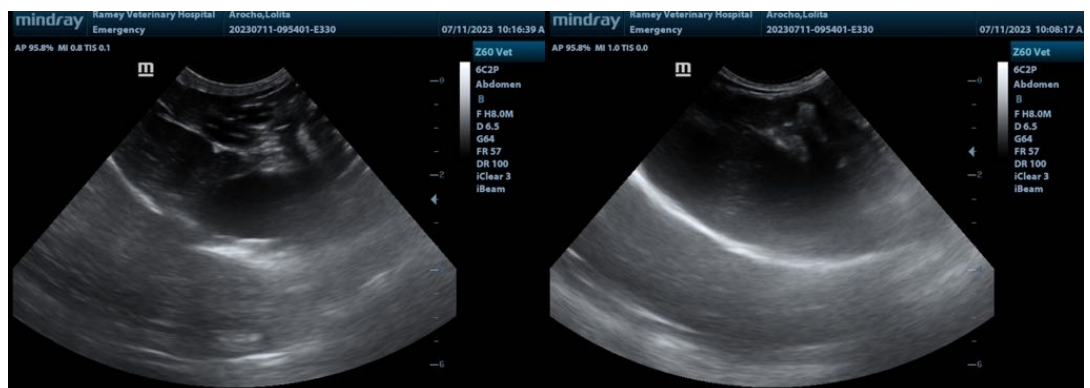
Dra. Alvarado

INVOICE

76058

DATE

7/11/23





PATIENT

Lolita Arocho

SPECIES

Canine

BREED

Chihuahua

SEX

Female

AGE

2 years

WEIGHT

5.4 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dra. Alvarado

HOSPITAL NAME

Ramey VH

REFERRING VET

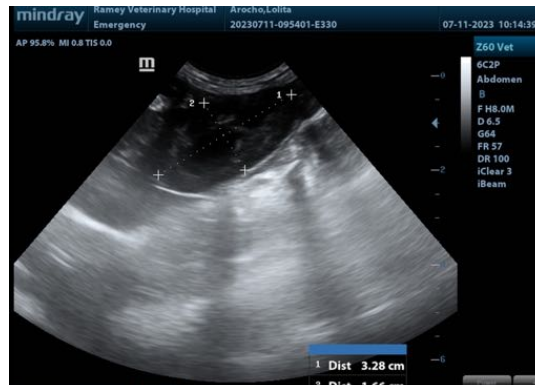
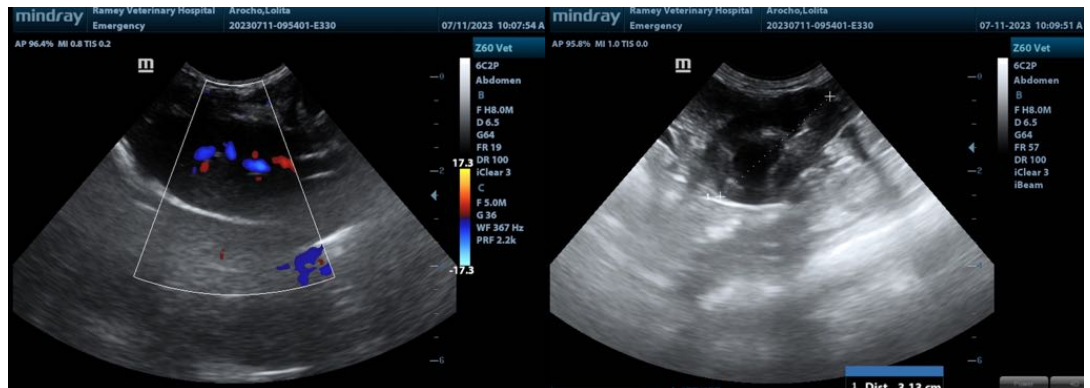
Dra. Alvarado

INVOICE

76058

DATE

7/11/23



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