



PATIENT

Frida Delia

SPECIES

Canine

BREED

Chihuahua x

SEX

Spayed Female

AGE

10 Years 7 Months

WEIGHT

28 lbs

INTERPRETED BY

Beth Johnson, DVM
 DACVIM

IMAGING PERFORMED BY

Kathleen Byrnes

HOSPITAL NAME

Armstrong Animal
 Clinic

REFERRING VET

Dr. Aquino

INVOICE

73567

DATE

3/11/26

PRESENTING CLINICAL SIGNS

P presented for ultrasound due to elevated liver values.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia or infarcts observed. Left kidney measures 5.0 cm. Right kidney measures 5.3 cm. Punctate non-obstructive nephroliths are noted bilaterally.

Adrenal Glands

The right adrenal gland is normal in size (0.71 cm at cranial pole and 0.68 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. A hyperechoic nodule is noted in the cranial pole. Nodule does not disrupt normal shape and/or architecture. Visible surrounding vasculature appears normal.

The left adrenal gland is largely normal in size, shape and contour, measuring 1.2 cm at the cranial pole and 1.4 cm at the caudal pole. Some parenchymal heterogeneity is present without concerning capsular distortion. These changes are likely normal for this age but should be monitored if there is any suspicion of adrenal disease.

Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. Multifocal, too numerous to count intrahepatic biliary mineral densities are noted. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is mildly overdistended with a moderate amount of non-dependent, mildly aggregated/inspissated sludge. Hypo to anechoic cystic areas are noted between the gallbladder sludge and luminal wall. The wall is otherwise smooth without visible thickening. Non-visibly obstructive mineral densities are also present within the gallbladder. There is no evidence of cystic or CBD dilation. There is no evidence of effusion.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with a small to moderate amount of echogenic non-shadowing luminal contents and gas



PATIENT

Frida Delia

SPECIES

Canine

BREED

Chihuahua x

SEX

Spayed Female

AGE

10 Years 7 Months

WEIGHT

28 lbs

INTERPRETED BY

Beth Johnson, DVM
 DACVIM

IMAGING PERFORMED BY

Kathleen Byrnes

HOSPITAL NAME

Armstrong Animal
 Clinic

REFERRING VET

Dr. Aquino

INVOICE

73567

DATE

3/11/26

consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta/chyme. There is no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The pancreas that is observed appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no visible free peritoneal effusion noted in these images.

Medial iliac lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

PRIMARY FINDINGS

- Emerging mucocele – Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. The non-dependent nature of this sludge combined with the cystic areas are suggestive, however, of possible emerging cystic mucosal hyperplasia or early gallbladder mucocele.
- Large number of intrahepatic biliary mineral densities and mineral gallbladder debris – Of unknown if any clinical significance and could be an incidental finding or a residual, not currently actively clinical change, but should be interpreted in combination with clinical signs, laboratory changes, etc.
- The adrenal gland changes should be interpreted in combination with patient's clinical history, as differentials include both benign incidental findings as well as adrenal disease.
- Mildly reactive medial iliac lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely.

SECONDARY FINDINGS

- Age related kidney changes with punctate non-obstructive nephroliths bilaterally.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Further recommendations for patient's reportedly increased liver values, given the changes noted above, depend in large part on patient's clinical history as well as the exact degree and pattern of liver enzyme increase i.e., more of a hepatocellular injury pattern versus a cholestatic pattern, etc.



PATIENT

Frida Delia

SPECIES

Canine

BREED

Chihuahua x

SEX

Spayed Female

AGE

10 Years 7 Months

WEIGHT

28 lbs

INTERPRETED BY

Beth Johnson, DVM
 DACVIM

IMAGING PERFORMED BY

Kathleen Byrnes

HOSPITAL NAME

Armstrong Animal
 Clinic

REFERRING VET

Dr. Aquino

INVOICE

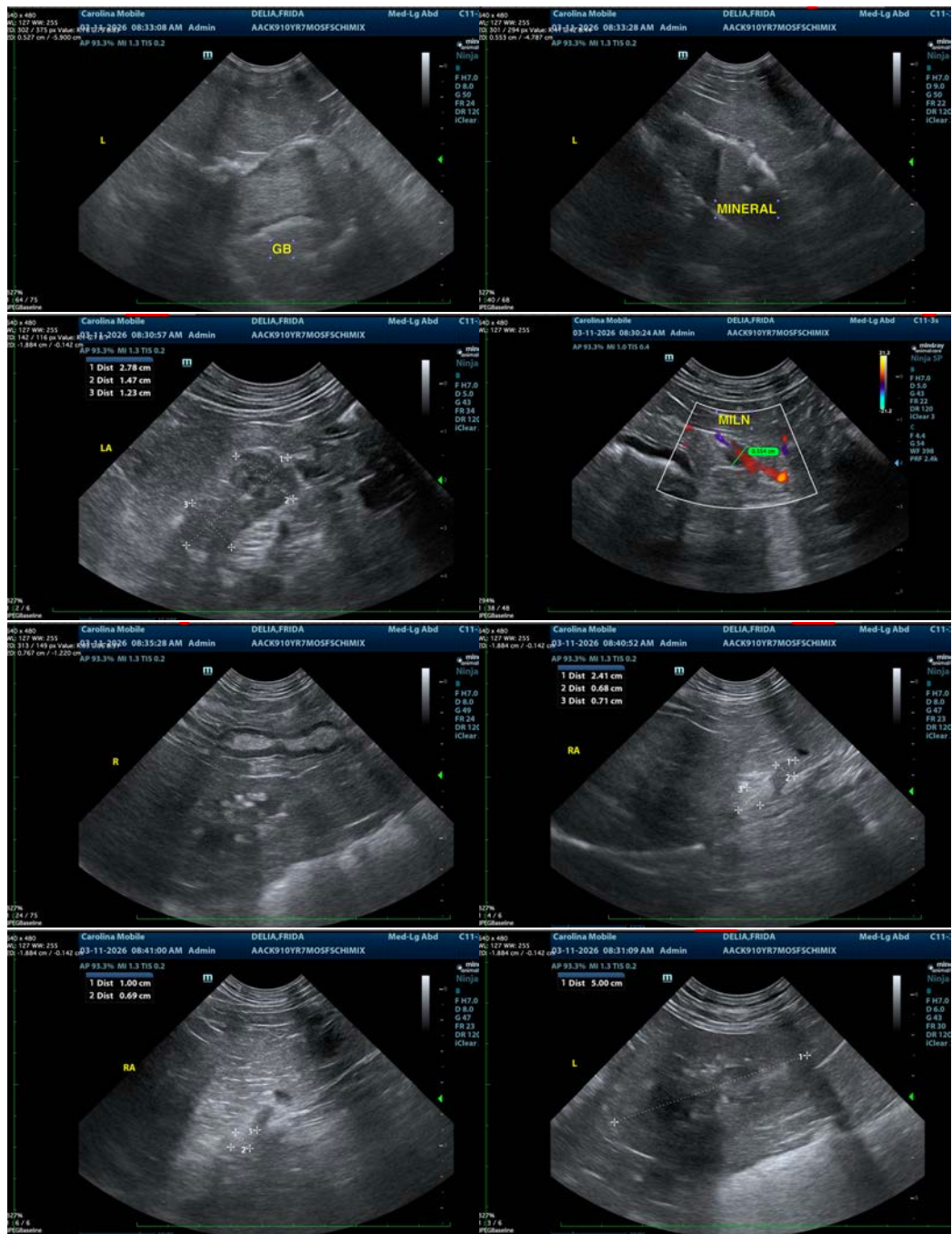
73567

DATE

3/11/26

Having said that, if not recently evaluated, a blood pressure is recommended, as is a urinalysis and, if indicated based on urinalysis results, urine culture is recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended.

In the meantime, empirical hepatic nutraceuticals including Ursodiol could be considered.





PATIENT

Frida Delia

SPECIES

Canine

BREED

Chihuahua x

SEX

Spayed Female

AGE

10 Years 7 Months

WEIGHT

28 lbs

INTERPRETED BY

Beth Johnson, DVM
DACVIM

**IMAGING
PERFORMED BY**

Kathleen Byrnes

HOSPITAL NAME

Armstrong Animal
Clinic

REFERRING VET

Dr. Aquino

INVOICE

73567

DATE

3/11/26

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.

Beth Johnson, DVM, DACVIM
info@sonopath.com