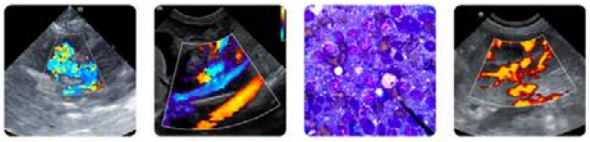


PATIENT

Zoe Landin

SPECIES

Canine

BREED

Chihuahua x

SEX

Spayed Female

AGE

12 Years 8 Months

WEIGHT

8.3 kg

INTERPRETED BY

Greg Kuhlman, DVM, DACVIM (SAIM)

IMAGING PERFORMED BY

Dr. Karla Schultz

HOSPITAL NAME

Northshore Veterinary Hospital

REFERRING VET

Dr. Karla Schultz

INVOICE

72869

DATE

2/10/26

PRESENTING CLINICAL SIGNS

Evaluation for 1.1 lbs weight loss in 8 months with excellent appetite other than intermittent bouts of nausea/abdominal discomfort (responsive to maropitant PRN. Primary differentials neoplasia vs inflammatory bowel disease vs hyperadrenocorticism. On AUS I am seeing abnormalities within the liver- a hypoechoic region and a hyperechoic region. I labeled these videos.

Abnormal PE/Chem/CBC/UA Results: PE: mild decreased abdominal muscle tone, moderate dental disease, rest NSF CBC 2/10/2026: mild reticulocytosis without anemia, normal WBCs and thrombocytes chem10 2/10/2026: WNL other than mild increase ALP in-house eval of thoracic and abdominal radiographs: hepatomegaly, minimal cardiomegaly, otherwise unremarkable urinalysis not yet performed

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The bladder is moderately distended with anechoic urine. No uroliths are seen. The bladder wall is normal in appearance and thickness. No masses are seen.

The right kidney presents normal size (4.7 cm) with normal shape and architecture. Normal corticomedullary distinction. No pyelectasia, ureteral dilation or nephrolithiasis.

The left kidney presents normal size (4.5 cm) with normal shape and architecture. Normal corticomedullary distinction. No pyelectasia, ureteral dilation or nephrolithiasis.

Adrenal Glands

The right adrenal gland presents normal shape and homogenous parenchyma. The phrenic vasculature is unremarkable. The right adrenal measures 3.9 mm in width.

The left adrenal gland presents normal shape and homogenous parenchyma. The phrenic vasculature is unremarkable. The left adrenal measures 3.7 mm in width.

Spleen

The spleen is normal in size, shape, margination and echogenicity. No masses are seen.

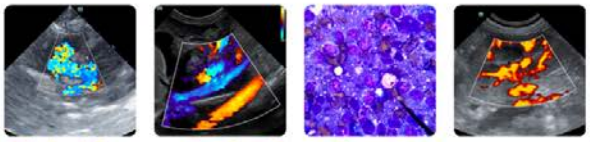
Liver

The liver is diffusely large and hypoechoic. Within the left liver there is a 5.6 mm in diameter hyperechoic lesion suspected to be a regenerative nodule, or less likely neoplasia. In the mid liver there is a 9.4 mm in diameter hypoechoic lesion suspected to also be a regenerative nodule, or less likely hepatic neoplasia.

There is a mild amount of echogenic suspended debris in the gallbladder that appears insignificant at this time. No evidence of significant cholangitis is seen on this ultrasound.

Gastrointestinal

The stomach and intestines have normal wall layering and thickness. Colon contains normal contents with normal wall thickness.



PATIENT

Zoe Landin

SPECIES

Canine

BREED

Chihuahua x

SEX

Spayed Female

AGE

12 Years 8 Months

WEIGHT

8.3 kg

INTERPRETED BY

Greg Kuhlman, DVM, DACVIM (SAIM)

IMAGING PERFORMED BY

Dr. Karla Schultz

HOSPITAL NAME

Northshore Veterinary Hospital

REFERRING VET

Dr. Karla Schultz

INVOICE

72869

DATE

2/10/26

Pancreas

The visible pancreas is normal in size with normal echogenic parenchyma and surrounded by normal peri-pancreatic mesentery.

Free Abdomen

There are no enlarged abdominal lymph nodes seen on this exam. No free abdominal fluid is seen.

ULTRASONOGRAPHIC FINDINGS

- Mild gallbladder debris that appears insignificant.
- Enlarged, hyperechoic liver – consistent with a vacuolar hepatopathy. Rule out secondary causes for the appearance of liver on ultrasound.
- Two nodules within the left and mid liver – most likely benign regenerative nodules.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall, the liver is diffusely large and hypoechoic, consistent with a vacuolar hepatopathy. Recommend periodic rechecking of the hepatic nodules via ultrasound to determine if they are growing in size or number. Consider fine needle aspirate of one or both of these lesions and submitting for cytology to rule out neoplasia. However, neoplasia seems unlikely for either of these hepatic lesions at this time.

It is reported that patient's ALP is elevated, which is consistent with possible vacuolar hepatopathy due to secondary etiologies. Consider a full screening workup for secondary causes of an elevated ALP.

Recommend submitting a fasted triglyceride to rule out hypertriglyceridemia as a cause of the hepatopathy.

Recommend a full thyroid panel to screen for possible dyslipidemia causing a vacuolar hepatopathy.

Recommend a Texas A&M GI panel to screen the patient for occult pancreatic and occult gastrointestinal disease, as a cause of the patient's elevated ALP and possible occult gastrointestinal disease could potentially be the cause for the patient's reported weight loss.

I would also recommend submitting a urine cortisol to creatinine ratio, and if elevated, recommend following up with a low-dose Dexamethasone suppression test to rule out hyperadrenocorticism as a cause of the elevated ALP and suspected vacuolar hepatopathy seen on this ultrasound.

Ultimately, if no secondary cause is identified for the appearance of the patient's liver and the ALP remains elevated, consider liver biopsy.

PATIENT

Zoe Landin

SPECIES

Canine

BREED

Chihuahua x

SEX

Spayed Female

AGE

12 Years 8 Months

WEIGHT

8.3 kg

INTERPRETED BY

Greg Kuhlman, DVM, DACVIM (SAIM)

IMAGING PERFORMED BY

Dr. Karla Schultz

HOSPITAL NAME

Northshore Veterinary Hospital

REFERRING VET

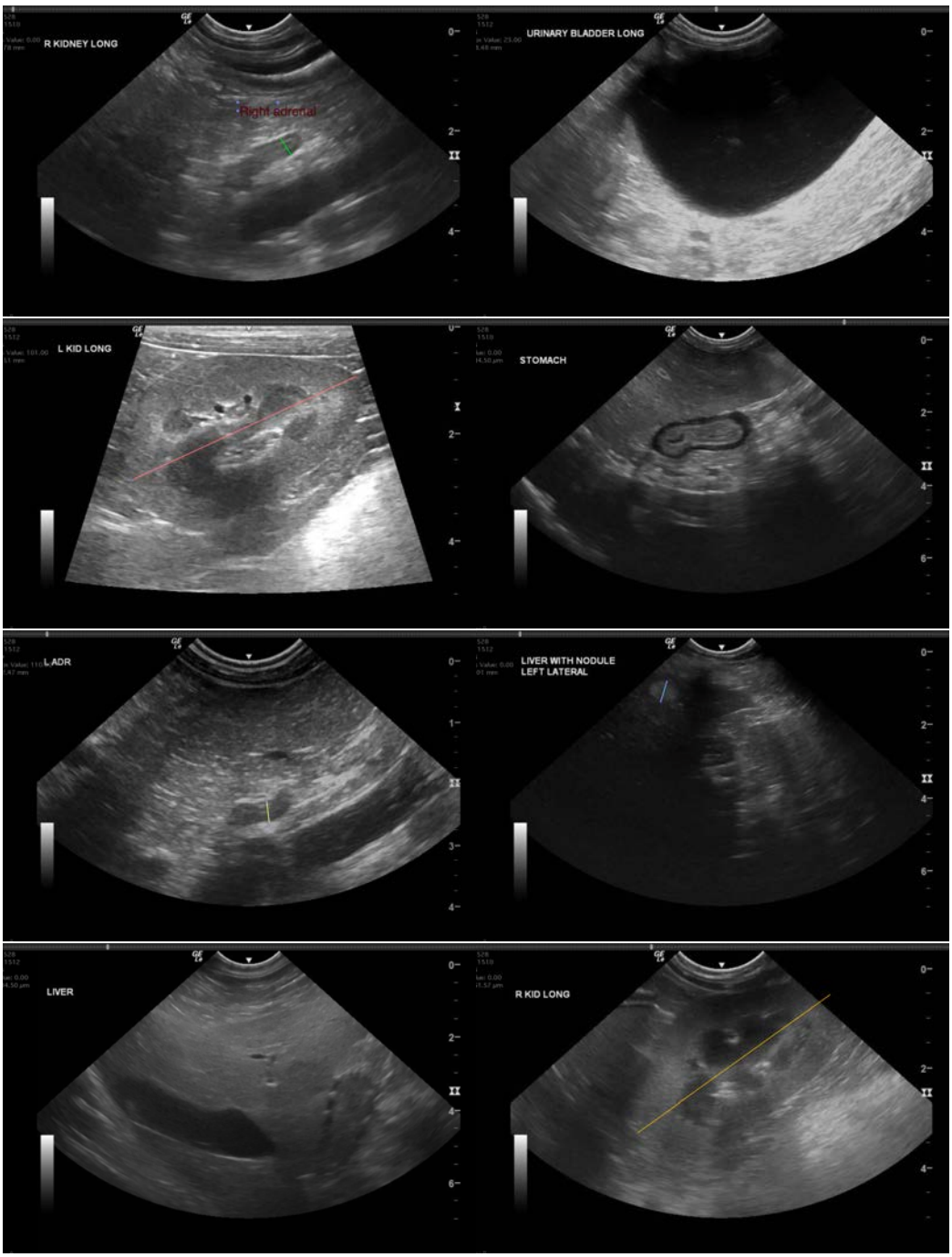
Dr. Karla Schultz

INVOICE

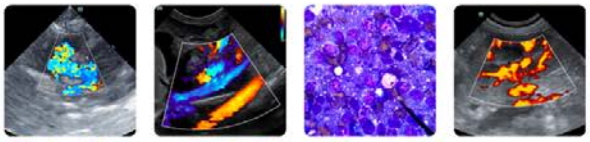
72869

DATE

2/10/26



SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™



Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath.com info@sonopath.com 1.800.838.4268

PATIENT

Zoe Landin

SPECIES

Canine

BREED

Chihuahua x

SEX

Spayed Female

AGE

12 Years 8 Months

WEIGHT

8.3 kg

INTERPRETED BY

Greg Kuhlman, DVM, DACVIM (SAIM)

IMAGING PERFORMED BY

Dr. Karla Schultz

HOSPITAL NAME

Northshore Veterinary Hospital

REFERRING VET

Dr. Karla Schultz

INVOICE

72869

DATE

2/10/26

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.

Greg Kuhlman, DVM, DACVIM (SAIM)
Veterinary Internal Medicine Specialist
info@SonoPath.com