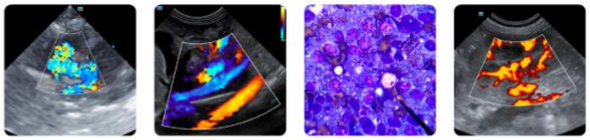


PATIENT

Maia Meier

SPECIES

Canine

BREED

Shepherd Mix

SEX

Spayed Female

AGE

6 Years 9 Months

WEIGHT

42 kg

INTERPRETED BY

Greg Kuhlman, DVM, DACVIM (SAIM)

IMAGING PERFORMED BY

Dr. Mariusz Chmielinski, DVM

HOSPITAL NAME

Apex VS, Ltd.

REFERRING VET

Alpine 24/7 ER Doctor

INVOICE

37402

DATE

6/6/26

PRESENTING CLINICAL SIGNS

History: Acute onset hematuria with marked pollakiuria/stranguria. Owner reports frequent attempts to urinate (approximately hourly), discomfort, and visible blood in the urine beginning June 6, 2026 History of polyuria/polydipsia since March 2026. Previously diagnosed with elevated liver enzymes. Initial bloodwork (March 2026) showed ALT 240 U/L and ALP 168 U/L. Recent bloodwork (June 4, 2026) demonstrated severe ALP elevation (1329 U/L) with mild ALT elevation (121 U/L). Significant weight gain (~5–6 kg over 2 months). Previous abdominal ultrasound (April 2026) reportedly showed age-related renal changes but was otherwise unremarkable. Stage 2 CKD was previously suspected, although current renal values and SDMA are within reference range. Concern raised by referring veterinarian regarding possible hepatobiliary disease and/or hyperadrenocorticism due to severe ALP elevation, PU/PD, and weight gain.

Abnormal PE/Chem/CBC/UA Results: March 2026 urinalysis (cystocentesis): USG 1.027, no hematuria, pyuria, bacteriuria, crystalluria, or proteinuria. June 3, 2026 POCUS: Mild bladder wall thickening noted. Abdominal radiographs (June 4, 2026): No radiopaque uroliths, masses, or significant abdominal abnormalities identified. Liver size within normal limits. Bladder moderately distended without obvious intraluminal stones or masses.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with a moderate amount of echogenic non-shadowing debris, most consistent with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The right kidney was normal in size. Mild loss of corticomedullary distinction was noted. No pyelectasia, ureteral dilation or nephrolithiasis. The right kidney measured 6.7 cm in length.

The left kidney was normal in size. Mild loss of corticomedullary distinction was noted. No pyelectasia, ureteral dilation or nephrolithiasis. The left kidney measured 6.3 cm in length.

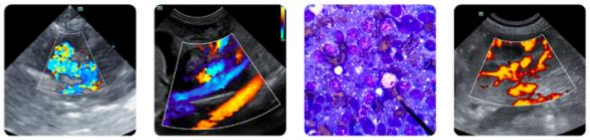
Adrenal Glands

The right adrenal gland presents normal shape and homogenous parenchyma. The phrenic vasculature is unremarkable. The right adrenal gland measured 5.5 mm in width at the caudal pole and 3.4 mm in width cranial pole.

The left adrenal gland presents normal shape and homogenous parenchyma. The phrenic vasculature is unremarkable. The left adrenal gland measured 5.3 mm at the caudal pole and 4.4 mm at the cranial pole.

Spleen

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



PATIENT

Maia Meier

SPECIES

Canine

BREED

Shepherd Mix

SEX

Spayed Female

AGE

6 Years 9 Months

WEIGHT

42 kg

INTERPRETED BY

Greg Kuhlman, DVM, DACVIM (SAIM)

IMAGING PERFORMED BY

Dr. Mariusz Chmielinski, DVM

HOSPITAL NAME

Apex VS, Ltd.

REFERRING VET

Alpine 24/7 ER Doctor

INVOICE

37402

DATE

6/6/26

Liver

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as moderate suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The stomach is moderately distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. If patient was appropriately fasted, delayed gastric emptying could be considered. Non-shadowing foreign material is considered less likely but cannot be definitively ruled out. If clinical signs are consistent (vomiting, etc.), recommendations include supportive medical care, 24 hours fasting and re-image.

The intestines have normal wall layering and thickness.

The colon contains normal contents with normal wall thickness.

Pancreas

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

Free Abdomen

Mild mesenteric lymphadenopathy was noted; a representative node measures 5.8 mm width. This appears reactive, less likely neoplastic.

No free abdominal fluid is seen.

ULTRASONOGRAPHIC FINDINGS

- Hyperechoic hepatomegaly - suspect patient has benign vacuolar hepatopathy most likely due to a secondary cause. Given the normal appearing adrenals, hyperadrenocorticism seems less likely to be the cause.
- Moderate gallbladder debris - potentially the cause of elevated liver values.
- Moderate urinary bladder debris
- Full stomach- The patient appears not fasted for this exam.
- Mild mesenteric lymphadenopathy- appears reactive, less likely neoplastic.
- Mild loss of corticomedullary distinction bilaterally in the kidneys.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

It is possible that the patient's gallbladder debris may be causing mild to moderate cholestasis and causing the appearance of the liver. Ultimately, if no identifiable cause for the appearance of the liver

PATIENT

Maia Meier

SPECIES

Canine

BREED

Shepherd Mix

SEX

Spayed Female

AGE

6 Years 9 Months

WEIGHT

42 kg

INTERPRETED BY

Greg Kuhlman, DVM, DACVIM (SAIM)

IMAGING PERFORMED BY

Dr. Mariusz Chmielinski, DVM

HOSPITAL NAME

Apex VS, Ltd.

REFERRING VET

Alpine 24/7 ER Doctor

INVOICE

37402

DATE

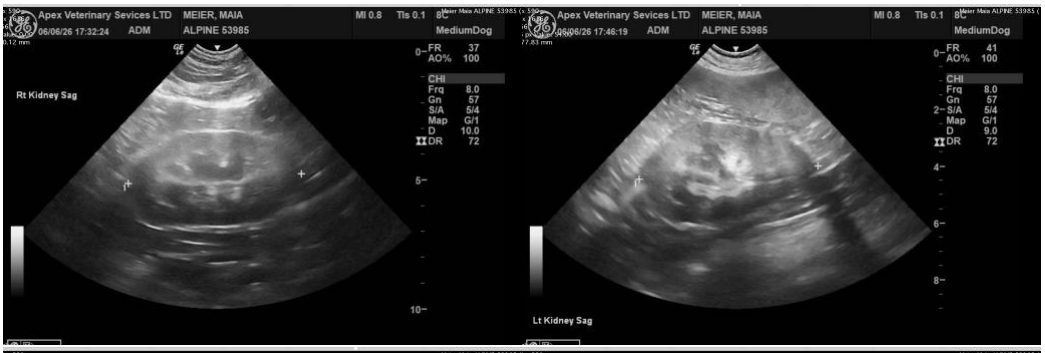
6/6/26

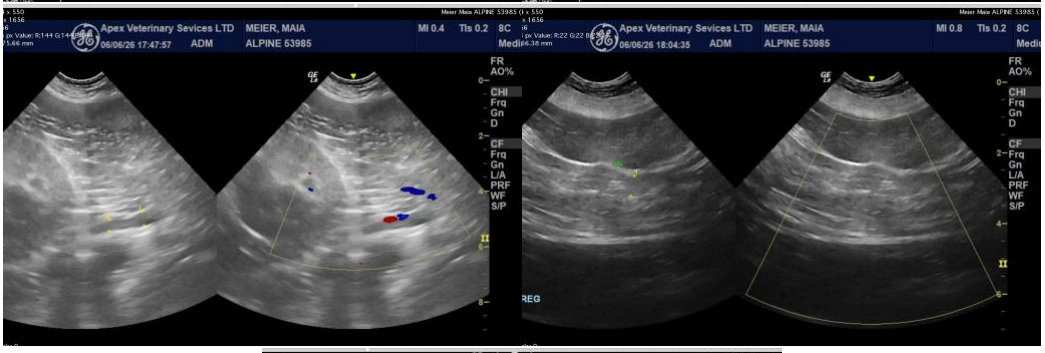
and the elevated alkaline phosphatase and ALT is found, recommend periodic monitoring, and if progression continues, recommend liver biopsy.

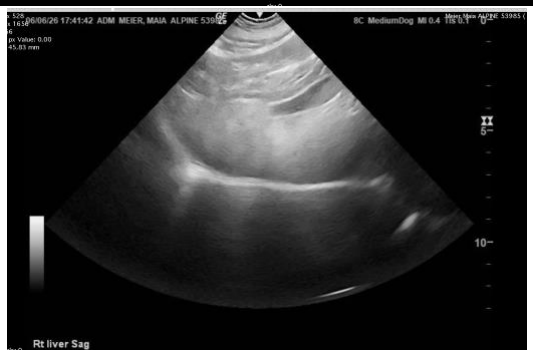
Consider starting ursodiol at 15 mg/kg, by mouth, split into two daily doses, rechecking liver values in 6-8 weeks, as well as gallbladder ultrasound to monitor for improvement in liver values and appearance of gallbladder.

Recommend urine cortisol to creatinine ratio to screen for possible hyperadrenocorticism. If hyperadrenocorticism is ruled out, consider screening for hypertriglyceridemia, hypothyroidism, pancreatic or GI disease not appreciated on this exam.

Recommend urine culture be submitted to rule out urinary tract infection. Ultimately, if urinary tract infection is not identified and the hematuria persists, recommend cystoscopy.

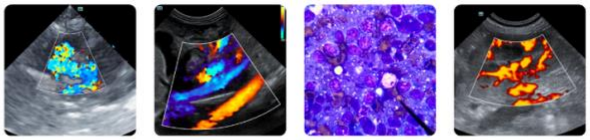






The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™



Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath.com info@sonopath.com 1.800.838.4268

PATIENT

Maia Meier

SPECIES

Canine

BREED

Shepherd Mix

SEX

Spayed Female

AGE

6 Years 9 Months

WEIGHT

42 kg

INTERPRETED BY

Greg Kuhlman, DVM, DACVIM (SAIM)

IMAGING PERFORMED BY

Dr. Mariusz Chmielinski, DVM

HOSPITAL NAME

Apex VS, Ltd.

REFERRING VET

Alpine 24/7 ER Doctor

INVOICE

37402

DATE

6/6/26

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