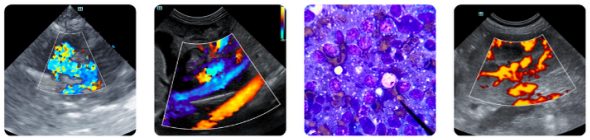


PATIENT

Sparky Marrero

SPECIES

Canine

BREED

Yorkie

SEX

MN

AGE

10 years

WEIGHT

6.8

INTERPRETED BY

Greg Kuhlman, DVM, DACVIM (SAIM)

IMAGING PERFORMED BY

Dr. Reyes

HOSPITAL NAME

Graceful Paws Pet Clinic

REFERRING VET

Dr. Reyes

INVOICE

12042

DATE

5/29/2026

PRESENTING CLINICAL SIGNS

Pet presented for ultrasound due to mild elevation on liver enzymes at previous vet. Owner requested labwork prior to dental and mild elevation was noticed. Currently on Denamarin and Simparica Trio.

Abnormal PE/Chem/CBC/UA Results: ALT: 147 AST: 60 ALP: 222

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 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.

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, mineral or infarcts observed.

Left kidney measures 2.9 cm in length.

The right kidney measures 3.0 cm in length and contains non-obstructive areas of mineralization/nephroliths are noted within the renal pelvis measuring approximately 1.0 mm in width.

Adrenal Glands

The adrenal glands are not clearly visualized on this exam.

Spleen

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

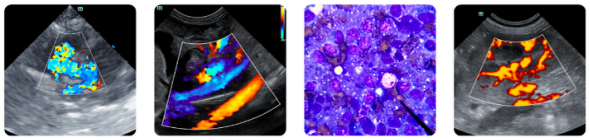
Liver

Liver is relatively normal in size and contour. Parenchyma is mildly heterogenous and coarse with mild likely age-related parenchymal remodeling noted. 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 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.



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If clinical signs are consistent (vomiting, etc.), recommendations include supportive medical care, 24 hours fasting and re-image.

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

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. The capsule is mildly irregular in shape. Parenchyma is mildly heterogenous and coarse. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

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

ULTRASONOGRAPHIC FINDINGS

- Age related changes visualized associated with the kidneys, as well as mild non-obstructive nephroliths noted in the right kidney.
- Pancreatic age-related remodeling/Chronic pancreatitis – Mild irregularities are consistent with benign age-related change. Low-grade smoldering chronic pancreatitis cannot be ruled out and should be suspected in the face of appropriate clinical signs.
- A moderate amount of echogenic urinary bladder debris.
- Age related hepatic changes and a moderate amount of gall bladder debris.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the appearance of the kidneys, if chronic kidney disease is suspected, then I recommend full staging for possible chronic kidney disease per the International Renal Interest Society (IRIS) Guidelines.

Given the appearance of the urinary bladder, possible urinary tract infection should be considered. If not already performed, recommended 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 ration is recommended. Recommend antibiotic sensitivity.

Patient's mildly elevated liver values may be due to cholangitis. Recommend starting ursodiol therapy for 6-8 weeks and recheck lab work as well as ultrasound of the gallbladder to determine if this has improved. If cholangitis is ruled out as the cause of the elevated liver values, then I recommend evaluating for any other secondary causes. There is no evidence of a primary hepatopathy in these images. Consider secondary hepatopathy diseases such as hypertriglyceridemia, possible hypothyroidism, occult pancreatitis, or occult GI disease. Recommend screening for hyperadrenocorticism via urine:creatinine ratio. If UCCR is elevated, then recommend a low dose dexamethasone suppression test. Consider screening for leptospirosis as a cause of the chronically elevated liver values, assuming patient is not vaccinated.

There is no obvious evidence of pancreatitis is observed on this exam. However, as previously mentioned, given the elevated liver values, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

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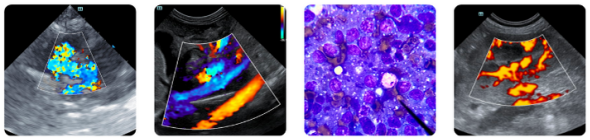

Clinical Sonography & Telecytology
Educational Teleconsultation Services™

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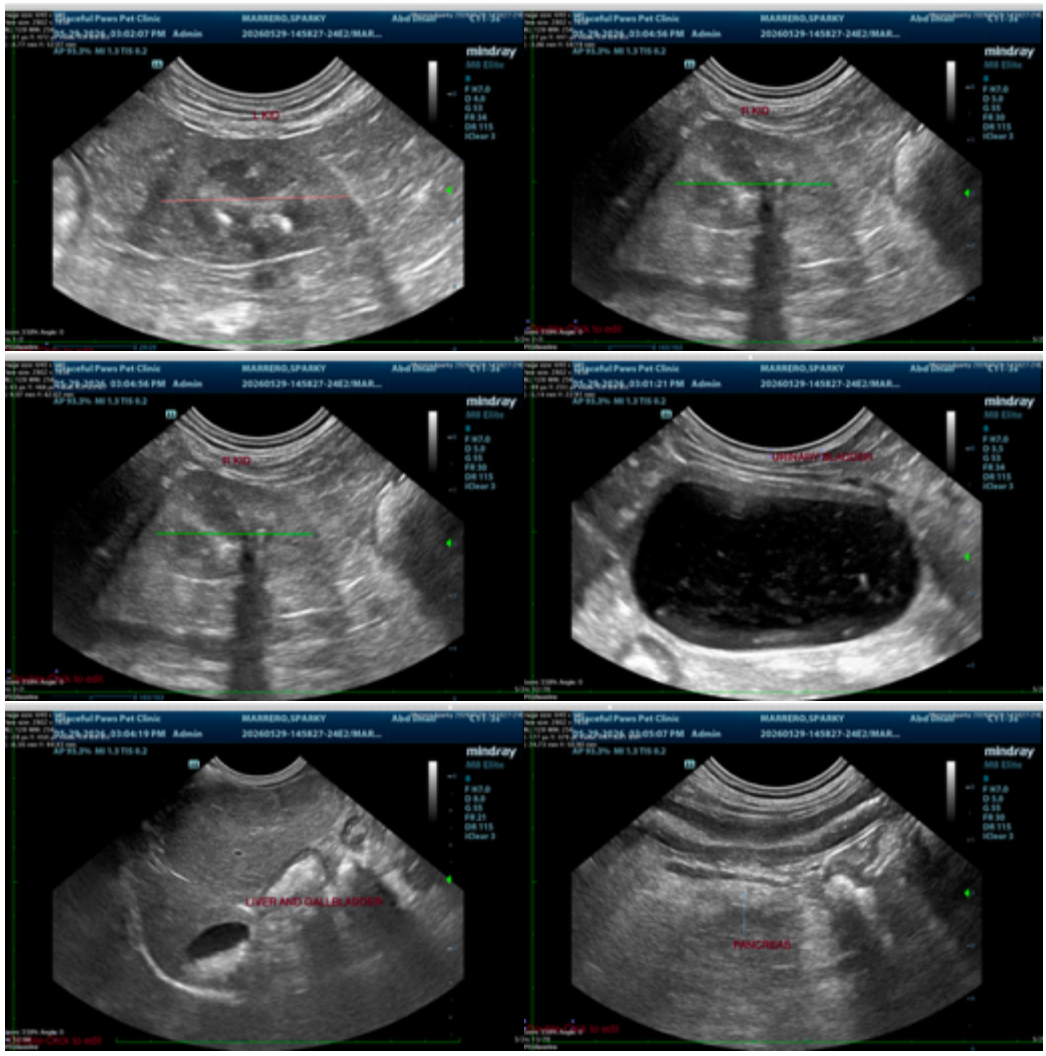

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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