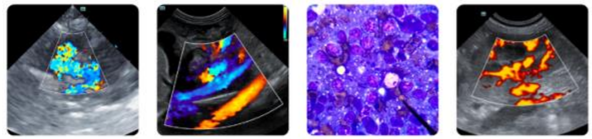


PATIENT
Jerry Carey

SPECIES
Canine

BREED
Chihuahua

SEX
Neutered Male

AGE
13 Years

WEIGHT
11.4 pounds

INTERPRETED BY
Greg Kuhlman, DVM, DACVIM (SAIM)

IMAGING PERFORMED BY
Dr. Kitz

HOSPITAL NAME
Woodlands Animal Hospital

REFERRING VET
Dr. Danielle Kitz

INVOICE
14339

DATE
03/15/26

PRESENTING CLINICAL SIGNS

- Patient has a history of sl increased ALKP last year, and further increase this year
- Offered screening ultrasound - owner elected to proceed

Abnormal PE/Chem/CBC/UA Results: ALKP- 467, TT4 low, platelets elevated Blood pressure normal Exam unremarkable other than periodontal disease and some aging ocular changes

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. No ureteral papilla is seen.

The left kidney presents normal size with normal shape and architecture. Normal corticomedullary distinction. No pyelectasia, ureteral dilation or nephrolithiasis. The left kidney measured 4.3 cm in length.

The right kidney presents normal size with normal shape and architecture. Normal corticomedullary distinction. No pyelectasia, ureteral dilation or nephrolithiasis. The right kidney measured 4.5 cm in length.

Adrenal Glands

The left adrenal gland presents normal shape and homogenous parenchyma. The phrenic vasculature is unremarkable. The cranial pole measures 5.1 mm and the caudal pole measures 4.7 mm.

The right adrenal gland presents at the upper limits of normal in size and homogenous parenchyma. The phrenic vasculature is unremarkable. The cranial pole measures 6.1 mm and the caudal pole measures 5.3 mm.

Spleen

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

Liver

The liver is diffusely enlarged, hyperechoic with rounded margins and normal vasculature. No lesion is seen.

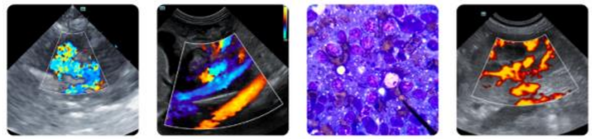
Gallbladder contains a moderate amount of aggregating echogenic debris. Gallbladder wall is normal in thickness. Visible common bile duct appears normal in thickness.

Gastrointestinal

The stomach and intestines have normal wall layering and thickness. 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.



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Free Abdomen

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

ULTRASONOGRAPHIC FINDINGS

- Moderate amount of aggregated hypoechogenic gallbladder debris- these findings may be insignificant at this time, however, should also consider the possibility of bacterial cholangitis.
- Enlarged hyperechoic liver most consistent with benign vacuolar hepatopathy.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

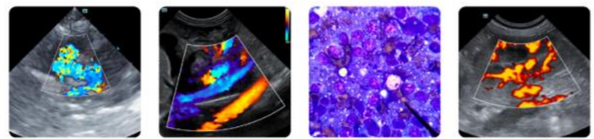
Recommend discussing ultrasound guided fine needle aspirate with owners of bile and submitting for aerobic/anaerobic bacterial culture and cytology to rule out bacterial cholangitis. If owners decline to pursue gallbladder aspirate, then treat empirically for bacterial cholangitis by starting antibiotics such as amoxicillin at 20 mg/kg by mouth given for one month. Also start ursodiol at 15 mg/kg by mouth, split into two daily doses given for one month. At that time, reassess the gallbladder via ultrasound to determine if improvement is seen.

Also recommend rechecking alkaline phosphatase to determine if improvements are seen. If alkaline phosphatase is not improved in one month, then recommend proceeding to a diagnostic plan regarding the enlarged liver. If gallbladder disease is ruled out as a cause of the appearance of the liver and the elevated alkaline phosphatase, then recommend evaluating the patient for other secondary causes for the suspected most likely benign hepatopathy. Recommend submitting urine cortisol to creatinine ratio to rule out hyperadrenocorticism. If UCC are elevated, then perform low-dose dexamethasone suppression test.

Recommend submitting fasted triglycerides to rule out hypertriglyceridemia as a cause of the patient's liver pathology. Also recommend submitting a thyroid panel to rule out hyperthyroidism causing a dyslipidemia which could result in the appearance of the liver and the elevated alkaline phosphatase. It would be recommended to submit a Texas A&M GI panel to screen for occult pancreatic or occult GI disease as a cause of the suspected vacuolar hepatopathy.

Ultimately if no secondary causes identified for the appearance of the liver and elevated alkaline phosphatase and the alkaline phosphatase continues to increase progressively, then a liver biopsy may be necessary at that time.

None of the findings on this ultrasound are highly concerning at this time. Patient's prognosis appears fair to good pending further diagnostics. The infiltrative neoplasia is unlikely to be the cause of the appearance of the liver and elevated alkaline phosphatase, however, prior to performing a liver biopsy in the future, if that is being considered, recommend fine needle aspirates of liver prior to a liver biopsy to rule out infiltrative neoplasia.



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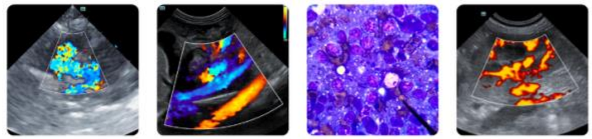

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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