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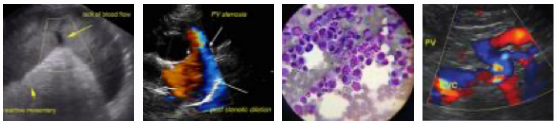

ANIMAL SOUNDS NW
MOBILE VETERINARY ULTRASOUND
IMAGING PERFORMED BY
AnimalSoundsNW.com 541-357-9423

PATIENT

Jackson Moeller

SPECIES

Canine

BREED

Schnauzer Mix

SEX

Neutered Male

AGE

11 years

WEIGHT

31.6 lbs

INTERPRETED BY

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

Willakenzie AC

REFERRING VET

Dr. DeWall

DATE

8.1.22

INVOICE

11296

PRESENTING CLINICAL SIGNS

History: elevated liver enzymes
Abnormal PE/Chem/CBC/UA Results: Current Medications Cytopoint

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The **prostate** is normal in size (0.59 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The **left kidney** is normal size (6.25 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The **right kidney** is normal size (3.53 cm in length); with a slightly irregular shape. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, or hydroureter. Renal vasculature is normal.

Adrenal Glands

The **left adrenal gland** is normal size (0.52 cm at cranial pole) (0.53 cm at caudal pole) (2.12 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The **right adrenal gland** is normal size (1.24 cm at cranial pole) (0.49 cm at caudal pole) (2.82 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The **spleen** is normal in size (1.47 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The **liver** is subjectively prominent in size with slight rounding of the peripheral margins. The parenchyma is isoechoic relative to the spleen and diffusely heterogenous and mottled in appearance with numerous, varying-sized hypoechoic nodules/masses, the largest measuring 3.47 cm in length. A few of the lesions cause mild capsular expansion. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The **gall bladder** lumen is moderately distended. The wall is thin and smooth. A small amount of aggregated, mostly gravity dependent, debris/sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

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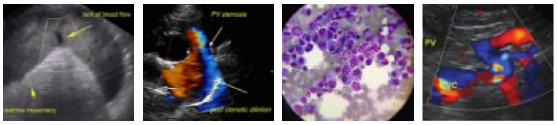

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Gastrointestinal

The **stomach and intestine** are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

Pancreas

The region of the **pancreas** is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

The **peritoneal cavity** is normal. There is no evidence of inflammation or effusion. The abdominal **lymph nodes** are normal/not visible.

Other

A brief echocardiogram reveals no evidence of pericardial effusion.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The hepatic parenchymal changes could be consistent with diffuse inflammatory disease, hepatotoxicosis (i.e., copper), infiltrative neoplasia (i.e., lymphoma), or other hepatopathy, +/- concurrent age-related change (i.e., regenerative nodular hyperplasia) and/or vacuolar hepatopathy.

Secondary Findings

- Minor, bilateral, age-related renal changes
- Gall bladder debris/sludge – incidental

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Consider pre-and postprandial serum bile acids, particularly if the ALT is substantially elevated. Ultimately, hepatic tissue sampling (i.e., fine-needle aspirate or surgical biopsy) may be necessary to get a definitive diagnosis. Surgical biopsies are preferred in that they are more likely to be representative of global organ pathology. If surgery is pursued, acquisition of additional hepatic tissue samples for potential copper quantitation as well as aerobic and anaerobic bile cultures are recommended. Thoracic radiographs (three-view) should be performed prior to anesthesia to assess cardiopulmonary status. Clotting times should also be evaluated prior to any hepatic tissue sampling.

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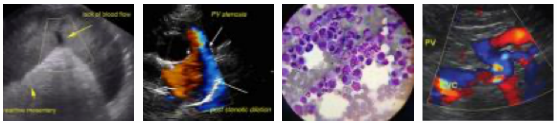

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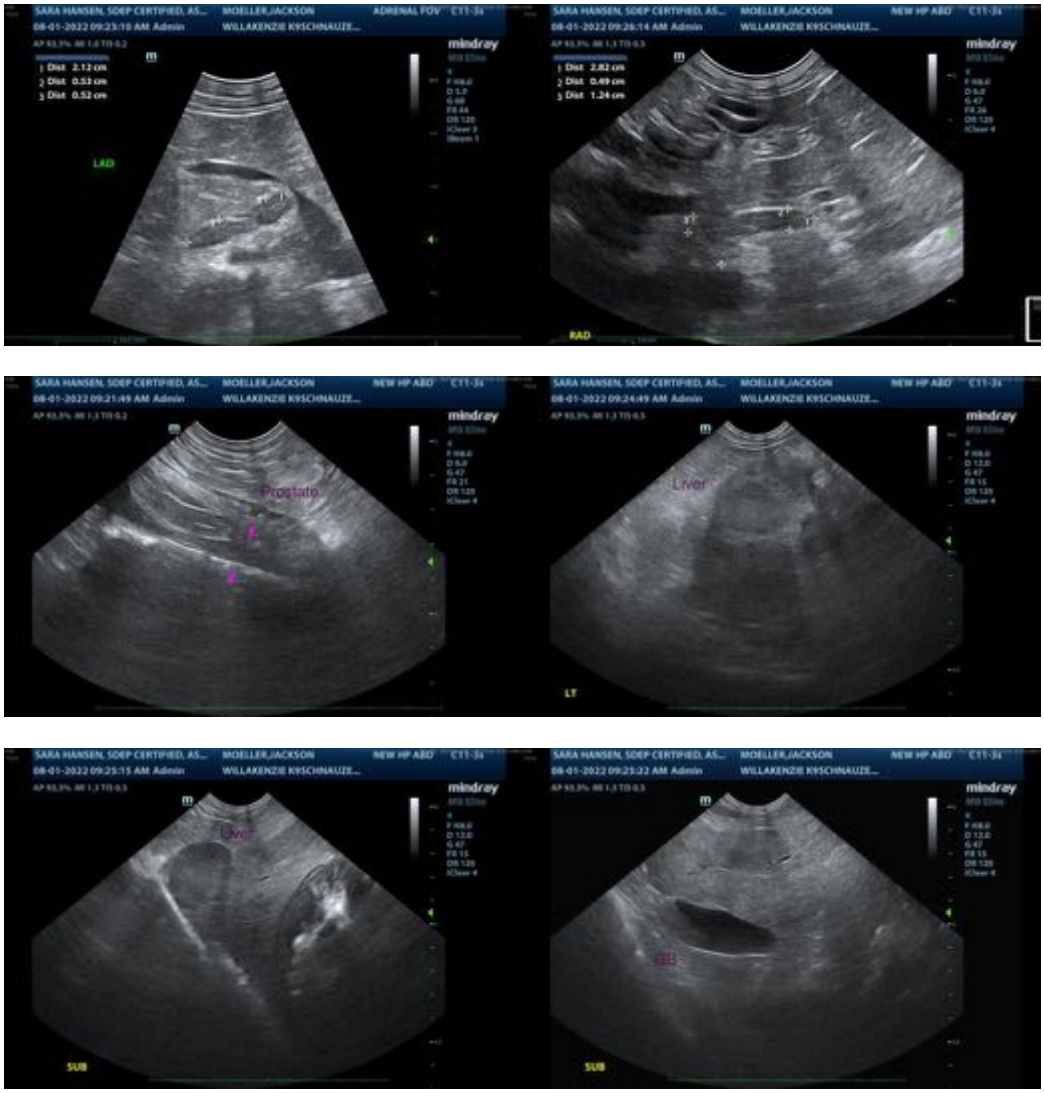
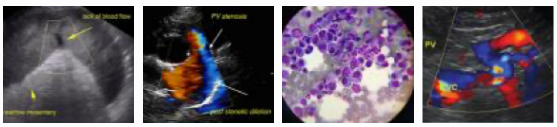


The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com



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