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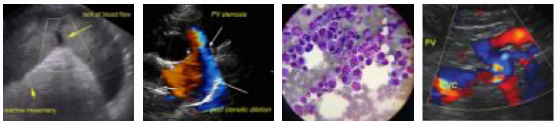


ANIMAL SOUNDS NW
MOBILE VETERINARY ULTRASOUND
IMAGING PERFORMED BY
AnimalSoundsNW.com 541-357-9423

PATIENT

JB Hoskinson

SPECIES

Canine

BREED

Mixed

SEX

Intact Male

AGE

4 years

WEIGHT

14 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

Banfield So. Eugene

REFERRING VET

Dr Wright

DATE

8.31.22

INVOICE

11543

PRESENTING CLINICAL SIGNS

History: Pet presented for AUS to investigate abnormal behavior and elevated ALT and GLOB. O reports that occasionally pet seems disorientated after napping, and sometimes has trouble walking - these episodes occur a few times a month. Pet will vomit occasionally after zoomies but otherwise eats normally and is having normal BMs. O reports increased thirst and small amount of weight loss. WT: 14.0 lbs / 6.35 kgs BCS: 5-6/9 BAR, T- NE, PR - wnl; CRT < 2 sec/pink, moist MM. COAT/INTEG: no lesions nor parasites appreciated EYES/EARS: OU WNL. AU clear. N/T: No nasal discharge, no sneezing, no cough on tracheal palpation. ORAL: 0-1/4 dental calculus HEART/LUNGS: no murmurs nor arrhythmias, synchronous pulses, Lungs clear, No coughing. LN: peripheral LNs are normal in size, shape, consistency. GI/UG: soft nonpainful abdomen on palpation. external genitalia is normal in appearance. full anal glands no scrotal testicles (listed as intact) M/S: no lameness nor abnormalities appreciated. NEURO: appropriate mentation, no deficits appreciated, nor spinal pain.

Abnormal PE/Chem/CBC/UA Results: 8/29/22: ALT 414 U/L (hx of 661 on 8/8/22), GLOB 5.0 g/dL (hx of 4.7 on 8/8/22) Current Medications Convenia 8/8/22, Denamarin, today sedation plan: torb/alfaxan

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 2-3 cm, are normal.

The **prostate** is normal in size (0.84 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 (3.84 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The **right kidney** is normal size (4.29 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

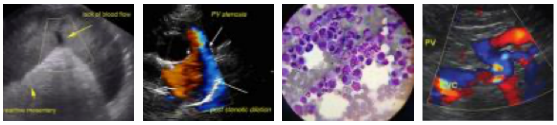
Adrenal Glands

The **left adrenal gland** is normal size (0.52 cm at cranial pole) (0.57 cm at caudal pole) (1.80 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 (0.88 cm at cranial pole) (0.36 cm at caudal pole) (2.02 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 (0.86 cm in width at the level of the hilus) with a normal capsular



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contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The **liver** is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative, or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed.

The **gall bladder** is moderately distended. The wall is normal in thickness. A 0.31 cm cholelith is observed within the lumen. The cystic and common bile ducts are normal/not seen.

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. A 0.57 medial iliac **lymph node** is visualized. One to two prominent jejunal lymph nodes are also seen, the largest measuring 1.77 cm in length.

Other

A **brief echocardiogram** reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

There is no obvious evidence of intrabdominal testicles.

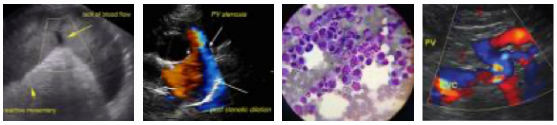
ULTRASONOGRAPHIC FINDINGS

Primary Findings

- An obvious cause for the elevated liver enzymes is not identified in the study. However, a microscopic hepatopathy (i.e., bacterial cholangiohepatitis, Leptospirosis, chronic active hepatitis, copper-associated hepatotoxicity, reactive hepatopathy, infiltrative neoplasia (less likely)) cannot be excluded.

Secondary Findings

- Cholelith – incidental
- Bilateral degenerative renal changes, the cause of which is unclear
- The lymph node changes are most consistent with reactive lymphadenitis or lymphoid hyperplasia.



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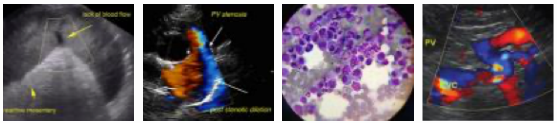
*Although the patient is marked as intact, the lack of external or internal testicles and the normal prostate size would suggest that the patient has been neutered.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the patient's clinical history and ALT elevation, pre-and postprandial serum bile acids +/- a blood ammonia level are recommended to assess for hepatic dysfunction/encephalopathy. If elevated, a liver biopsy with aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for potential copper quantitation can be considered. A contrast abdominal CT scan would be useful in ruling out congenital portosystemic shunt. However, given the normal hepatic size, a congenital shunt is considered less likely.

If the patient's hepatic function is normal, consider referral to a board-certified neurologist for further evaluation.



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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