

Portable Animal Western Sonography, Inc.

IMAGING PERFORMED BY

pawsonography@gmail.com 530-786-8340

PATIENT

Buddy Macaluso

SPECIES

Canine

BREED

German SH Pointer

SEX

Neutered Male

AGE

2.5 years

WEIGHT

91 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Loetitia Saint-Jacques,
LVT

HOSPITAL NAME

Truckee Meadows
VH

REFERRING VET

Dr Rachel Kuester

INVOICE

12708

DATE

4.6.23

PRESENTING CLINICAL SIGNS

History: Weight Loss- Distended Abdomen- Cytology of abdominal fluid: Low protein-lymphocyte-rich transudate- USG 1001, Protein <2.0GM/DL, WBC 590 per uL, RBC 0- RAD report: Normal cardiac, ascites

Abnormal PE/Chem/CBC/UA Results: UA protein trace, pH 7.5. Bili 2+, CHEM- ALT 896, TBIL 1.6, BUN 7, MCH and MCHC LOW, thrombocytopenia

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is distended. A small amount of gravity-dependent mineralized sand is observed within the lumen. No distinct cystic calculi are observed. The region of the trigone and visible portion of the proximal urethra are normal.

The prostate is normal in size (1.30 cm in width) with a normal shape and smooth peripheral contours. A 0.41 cm ill-defined hyperechoic area is observed within the parenchyma which is thought to represent an imaging artifact. Parenchyma is otherwise homogenous. The prostatic urethra is not overtly dilated.

The left kidney is subjectively normal in size with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis.

The right kidney is normal in size (9.37 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis.

Adrenal Glands

The left adrenal gland is slightly small in size (0.48 cm at cranial pole) (0.50 cm at caudal pole) (3.93 cm in length) with a flattened contour. 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 in normal size (1.12 cm at cranial pole) (0.67 cm at caudal pole) (4.39 cm in length) with a normal shape and 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 enlarged (3.40 cm in width at the level of the hilus) with swollen peripheral contours. A light micronodular pattern is observed throughout the organ. No distinct focal lesions are observed. Splenic vasculature appears normal with no evidence of thrombosis.

Liver

The liver is subjectively small in size with irregular peripheral contours. The parenchyma is mildly heterogenous. No distinct focal lesions are observed. Intrahepatic biliary tracts are normal.

The gall bladder lumen is moderately distended. The wall is thin and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is mildly distended with ingesta. 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 segmentally

dilated with chyme. The small intestinal wall is normal in thickness 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 pancreas is enlarged and edematous with slightly irregular peripheral contours and homogenous parenchyma. The pancreatic duct is not overtly dilated.

Free Abdomen

A moderate to large amount of slightly echogenic free fluid is present. Two to three prominent lymph node are observed at the aortic trifurcation (the largest measuring 1.41 cm in length). A few prominent mesenteric lymph nodes are also seen (the largest measuring 1.35 cm in length)

Other

Several large, tortuous blood vessels are observed in the sublumbar region.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The hepatic parenchymal changes are concerning for an end-stage process (i.e., cirrhosis/fibrosis). However, other hepatopathies (i.e., inflammatory disease, hepatotoxicosis (i.e., copper)) cannot be excluded.
- The tortuous vessels in the sublumbar region are suspected to be acquired shunts (i.e., secondary to portal hypertension).
- The ascites is also suspected to be secondary to underlying liver disease and possible portal hypertension.

Secondary Findings

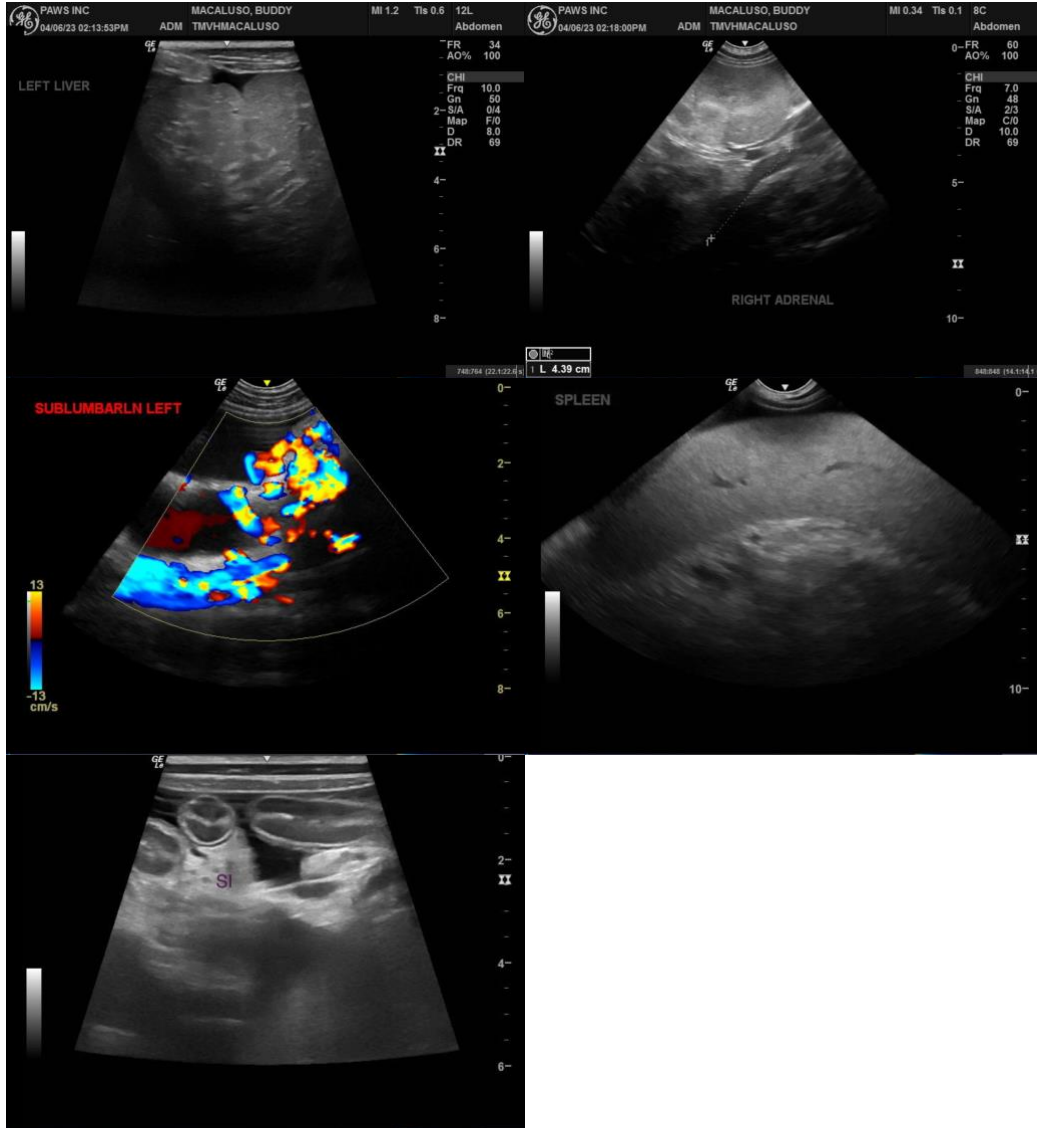
- Urinary bladder sand
- The small left adrenal gland may be a normal variant for this patient or may represent early atrophy (i.e., secondary to hypoadrenocorticism).
- The pancreatic changes are most consistent with passive congestion (i.e., due to portal hypertension). However, mild pancreatitis cannot be excluded.
- The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.
- The splenic parenchymal changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis, splenitis or antigenic stimulation, passive congestion, with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Pre-and postprandial serum bile acids +/- a blood ammonia level are recommended to assess for hepatic function.

- Also consider Leptospirosis testing (i.e., blood and urine PCR, serology), although this differential is considered less likely, given the likely chronic nature of the underlying hepatopathy.
- Ultimately, liver biopsies may be necessary to get a definitive diagnosis. However, it is possible that histopathology may only reveal fibrotic liver without evidence of the initial cause for the hepatopathy. If pursued, clotting times and thoracic radiographs should be performed prior to the procedures.





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