


PATIENT PRESENTING CLINICAL SIGNS

PATIENT	Miley Brouckaert	History: Client noticed small mass on inner left stifle and presented for FNA. Client also elected for bloodwork to be preformed because liver enzymes have been elevated in the past. Abnormal PE/Chem/CBC/UA Results: 2 slides - approx. 2-3" subcutaneous mass on inner left stifle, with soft and firm areas Microscopic Description: The specimen is moderately to highly cellular and composed of mesenchymal cells admixed with blood. Found individualized and in loosely cohesive aggregates is a population of spindloid to stellate cells with a moderate amount of wispy, pale basophilic cytoplasm that occasionally contains a few discrete, clear, vacuoles. The nuclei are oval with coarse chromatin, and one or more nucleoli. The degree of anisocytosis and anisokaryosis is moderate. There is occasional bi-nucleation. Microscopic Findings: Soft tissue sarcoma Comment: Soft tissue sarcomas include multiple tumor types such as perivascular wall tumor (e.g. hemangiopericytoma), peripheral nerve sheath tumor, fibrosarcoma, etc. that share similar biologic behavior. They can send out tendrils into the surrounding tissue and may recur more aggressively after incomplete excision. The probability of metastasis is relatively low for many tumors, and based on histologic grading. Histology may allow further differentiation of tumor type, but this is not always possible, even with multiple immunologic markers. TOTAL PROTEIN 6.0 5.0-7.4 g/dL ALBUMIN 3.5 2.7-4.4 g/dL GLOBULIN 2.5 1.6-3.6 g/dL A/G RATIO 1.4 0.8-2.0 AST (SGOT) 20 15-66 IU/L ALT (SGPT) 60 12-118 IU/L Alk Phosphatase 298 5-131 IU/L HIGH GGOT 6 1-12 IU/L Total Bilirubin 0.1 0.1-0.3 mg/dL BUN 31 6-31 mg/dL Creatinine 0.9 0.5-1.6 mg/dL BUN/CREAT RATIO 34 4-27 HIGH PHOSPHORUS 4.8 2.5-6.0 mg/dL Glucose 110 70-138 mg/dL CALCIUM 10.2 8.9-11.4 mg/dL MAGNESIUM 2.2 1.5-2.5 mEq/L SODIUM 153 139-154 mEq/L POTASSIUM 4.5 3.6-5.5 mEq/L NA/K RATIO 34 27-38 CHLORIDE 117 102-120 mEq/L CHOLESTEROL 249 92-324 mg/dL TRIGLYCERIDE 34 29-291 mg/dL AMYLASE 386 290-1125 IU/L PrecisionPSL 75 24-140 U/L Pancreatitis is unlikely, but a normal PrecisionPSL result does not completely exclude pancreatitis as a cause for gastrointestinal signs. CPK 66 59-895 IU/L Complete Blood Count WBC 6.6 4.0-15.5 103/mL RBC 6.8 4.8-9.3 106/mL HGB 15.1 12.1-20.3 g/dL HCT 47 36-60 % MCV 68 58-79 fL MCH 22.2 19-28 pg MCHC 32 30-38 g/dL Platelet Count 299 170-400 103/mL Platelet Estimate Adequate Differential Absolute % Neutrophils 4554 69 2060-10600 /mL Lymphocytes 1386 21 690-4500 /mL Monocytes 198 3 0-840 /mL Eosinophils 462 7 0-1200 /mL Basophils 0 0 0-150 /mL Absolute Neutrophils 4554 2060-10600 /mL Absolute Lymphocytes 1386 690-4500 /mL Absolute Monocytes 198 0-840 /mL Absolute Eosinophils 462 0-1200 /mL Absolute Basophils 0 0-150 /mL T4 T4 1.2 0.8-3.5 mg/dL Urinalysis-Complete Collection Method Not Stated Color Dark Yellow Appearance CLEAR Specific Gravity 1.034 1.015-1.050 pH 7.0 5.5-7.0 Protein 1+ NEGATIVE HIGH Microalbuminuria testing is recommended (if sediment is inactive) to help determine the clinical significance of proteinuria. Glucose-Strip NEGATIVE NEGATIVE Ketones NEGATIVE NEGATIVE Bilirubin NEGATIVE NEG TO 1+ Occult Blood NEGATIVE NEGATIVE WBC 0-1 0-3 HPF RBC NONE 0-3 HPF Casts NONE SEEN Hyaline 0-3 LPF Amorphous Phosphate Crystals 2-3 HPF Bacteria NONE SEEN None Seen HPF Epithelial Cells NONE SEEN HPF Fat Droplets 11-20 HPF Ova and Parasite Ova & Parasite NONE SEEN Accuplex Collection Method Heartworm (Antigen) NEGATIVE
SPECIES	Canine	
BREED	Mixed Breed	
SEX	Spayed Female	
AGE	12 Years	
WEIGHT	74 Pounds	
INTERPRETED BY	R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	
IMAGING PERFORMED BY	Amy Mayhew, LVT	
HOSPITAL NAME	SVS Imaging MI	

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN
Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 7.1 cm in length. The right kidney measured 7.4 cm in length. A small cyst was noted in the left kidney.

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DATE
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PATIENT

Adrenal Glands

Miley Brouckaert

The right adrenal gland was normal in size. The left adrenal gland was mildly prominent in size based on caudal pole measurement in light of body weight. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 0.59 cm width in the cranial pole and 0.94 cm width in the caudal pole. The right adrenal gland measured 0.68 cm width in the cranial pole and 0.57 cm width in the caudal pole. No evidence of adrenal tumors.

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Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.

Liver

The liver was mild to possible moderately enlarged. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non-distended in size with primarily anechoic luminal content with primarily dependent hyperechoic nonorganized debris without evidence of gallbladder or peripheral gallbladder inflammation. The cystic and common bile ducts were normal.

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

IMAGING PERFORMED BY

Amy Mayhew, LVT

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

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Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia. This is likely consistent with age-related pancreatic changes and incidental.

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Free Abdomen

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No omental masses, lymphadenopathy or evidence of peritoneal free fluid was present. No evidence of medial iliac or sublumbar lymphadenopathy/masses.

ULTRASONOGRAPHIC FINDINGS

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- Mild chronic renal changes with small left kidney cyst



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- Mildly prominent caudal left adrenal gland
- Minor splenic parenchyma heterogeneity
- Vacuolar hepatopathy pattern with minor parenchymal remodeling
- Mild gallbladder debris (non-mucocele)

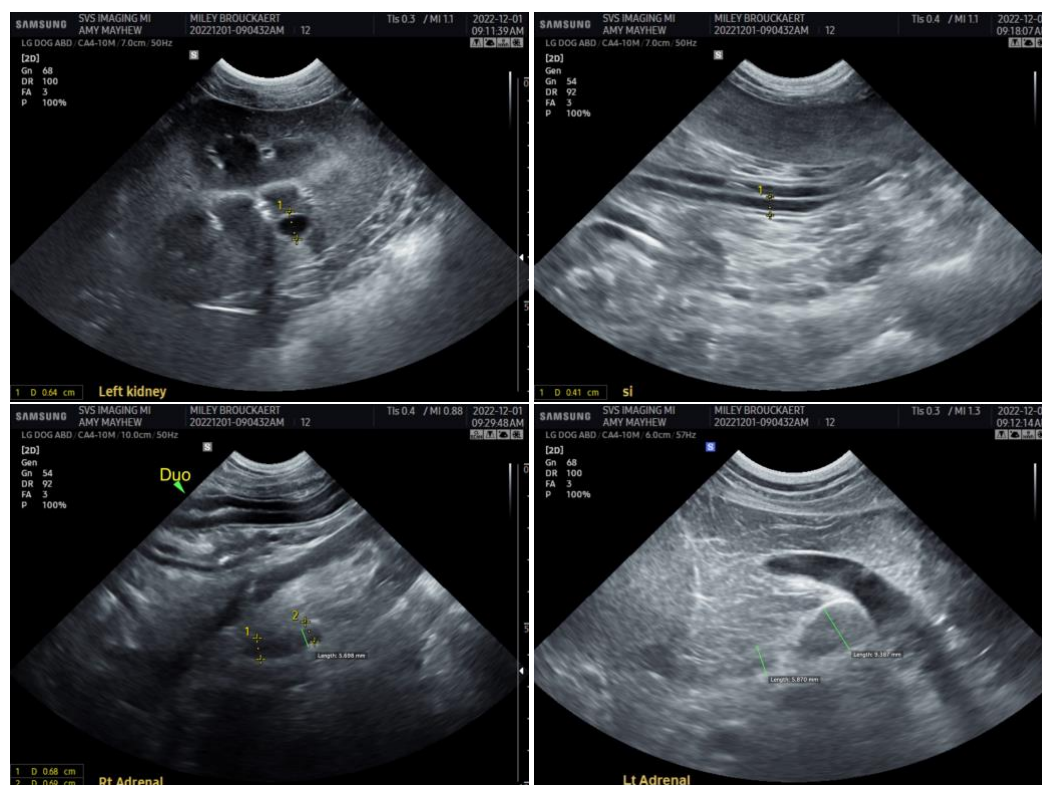
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall, largely geriatric abdomen without evidence of significant visceral pathology, including no evidence of intraabdominal primary or metastatic neoplastic criteria.

The heterogenous spleen is likely indicative of age-related splenic changes, incidental mild hyperplasia, hematopoiesis, or similar.

Assuming normal clotting status, screening hepatosplenic FNA cytology could be considered, using a 25-gauge needle, primarily to ensure only benign changes are present. Baseline renal staging to include UPC level on sterile urine sample could be considered if evidence of persistent or progressive proteinuria.

Hepatosupportive medications including Denamarin and Ursodiol may prove beneficial. Sonographic monitoring of the abdomen based on oncology recommendations is recommended.





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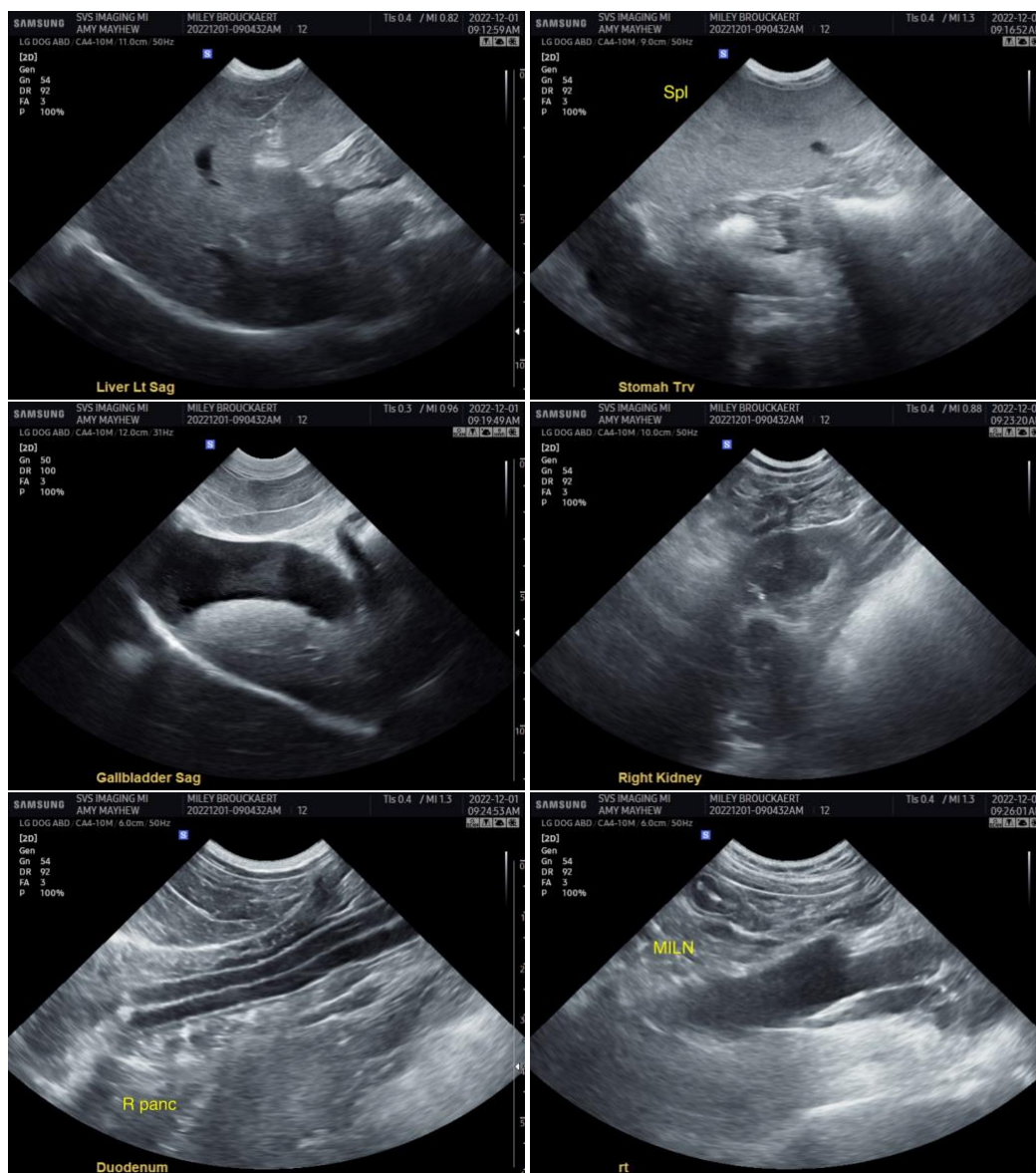
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
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