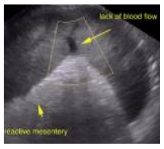
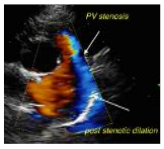
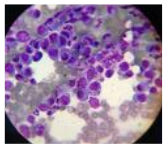
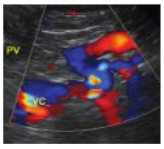
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Max Murdock

SPECIES

Canine

BREED

Poodle Mix

SEX

Neutered Male

AGE

11 Years 5 Months

WEIGHT

11.6 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Newton Vet

REFERRING VET

Dr. Wyman-Greenwald

INVOICE

14128

DATE

3/1/22

PRESENTING CLINICAL SIGNS

History: Has been lethargic at home, decreased appetite, but does seem better last couple of days. Abnormal PE/Chem/CBC/UA Results: PCV 30%, TP 8.0, ALKP 224, USG 1.005, PH 7, Ma 0.2

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

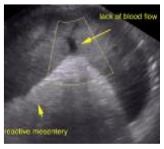
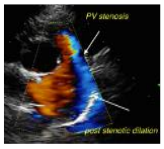
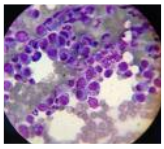
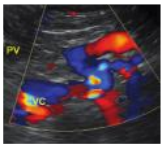
CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	--	--	1.34	1.2	36.2	68.3	0.27
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (kg)	**LA** 2D short axis Base view (cm)	**LVIDd** Avg; 2D and m-mode short axis (cm)	**LVIDs** Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
PATIENT	NM	1.0	0.8	--	2.5	2.43	--

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. The **left ventricle** presented thicknesses with linear contour and was not dilated nor restricted. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window.

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Mild particulate urinary bladder sediment was present, which likely indicates mild cellular debris or protein. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted. Aortic trifurcation was normal.

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No overt pathology in the area of the residual prostate.

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 4.3 cm in length. The right kidney measured 4.2 cm in length.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.44 cm width at the caudal pole and 0.44 cm width at the cranial pole.

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.52 cm width at the caudal pole and 0.74 cm width at the cranial pole.

Spleen

A small to moderately sized to expansive non-homogeneous splenic mass was noted, measuring 3.5 cm – 4.0 cm in diameter. The splenic parenchyma not associated with the mass exhibited generalized heterogeneity.

Liver

The liver exhibited mild generalized enlargement. Non-uniform hepatic parenchyma was present, exhibiting multifocal variably sized to nonhomogeneous intraparenchymal nodules. An example of a nodule measured 1.0 cm in diameter.

The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

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.

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.

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

Pancreas

An ill-defined mildly nonhomogeneous mass lesion was present in the area of the pancreas base and right pancreatic limb, measuring approximately 3.4 cm in diameter.

Free Abdomen

Generalized, nonuniformly echogenic omentum was present with moderate volume peritoneal free fluid, exhibiting mild cellular component. No overt lymphadenopathy.

ULTRASONOGRAPHIC FINDINGS

- Normal echocardiogram- no evidence of pericardial effusion or overt pericardial neoplasia/metastasis

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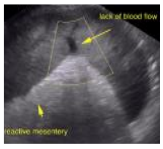

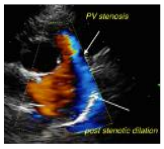

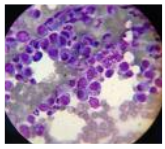
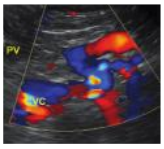

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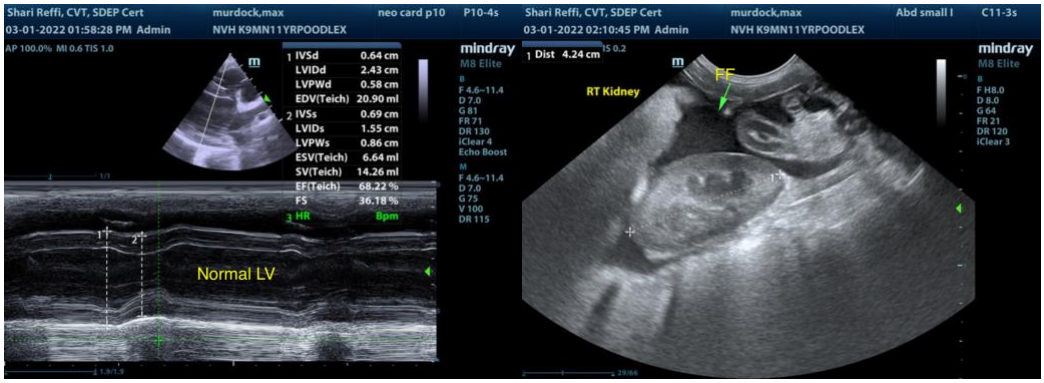
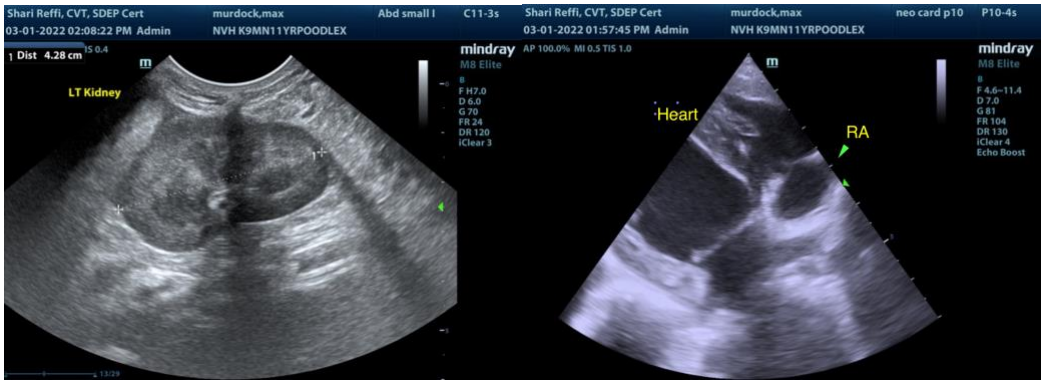
- Non-homogeneous splenic mass
- Multifocal variably size to non-homogeneous hepatic intraparenchymal nodules
- Unspecified mass in the area of the pancreas base and right pancreatic limb
- Moderate volume cellular peritoneal free fluid, generalized mild nonuniform echogenic mesentery

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Unfortunately, the abdominal findings are consistent with multicentric neoplasia, involving the spleen, liver and potential pancreas versus possibility of omental seeding, such as sarcomatosis, lymphomatosis or similar. The hemoabdomen may suggest higher potential for multicentric sarcoma in this case given the splenic, hepatic and suspected omental versus pancreatic involvement. Regardless, the diffuse nature of the neoplasia indicates that surgical options are precluded, and an unfavorable prognosis is indicated.





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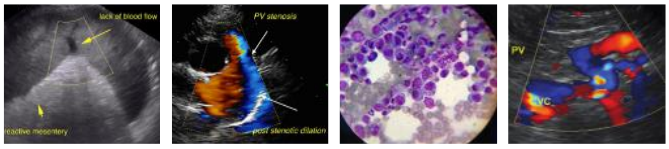

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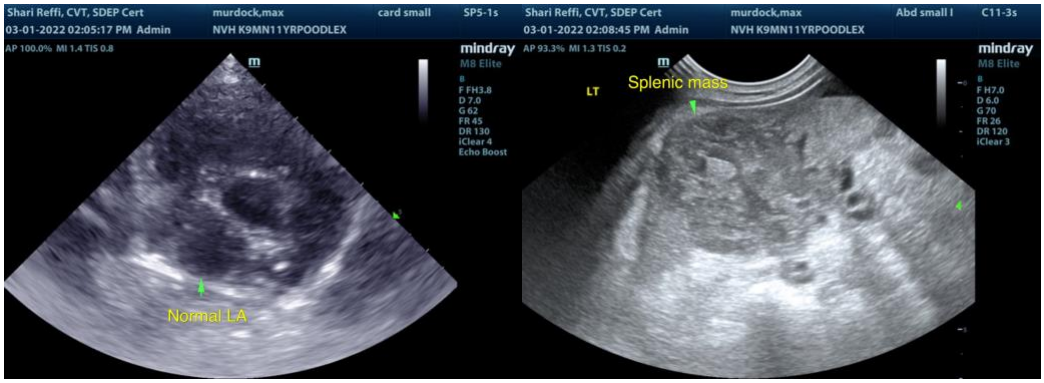

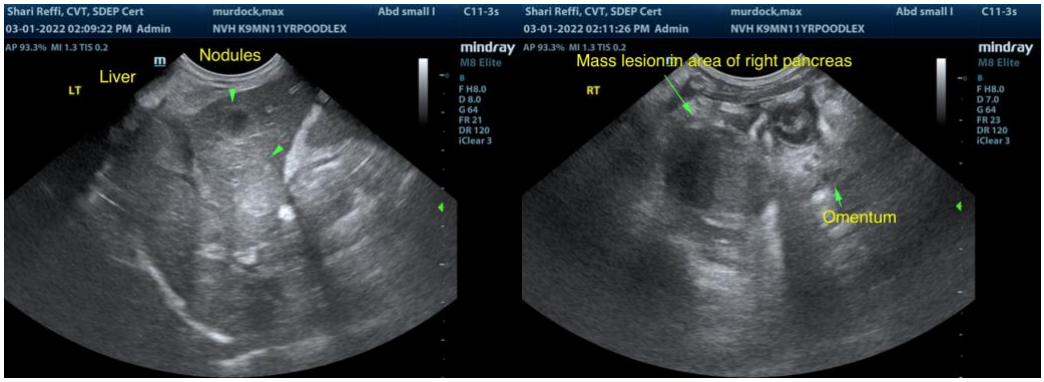

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
info@SonoPath.com