



PATIENT PRESENTING CLINICAL SIGNS

Cooper Neuwith

History: Lethargic, trouble using hind legs, pale MM, snappy pulses, anemic, thrombocytopenic, neutrophilic, elevated LE's. Current meds: +/- Gabapentin

SPECIES

Abnormal PE/Chem/CBC/UA Results: WBC 27.3 (15.5H); NEUT 24024 (10.6 H); MONO 1365; HCT 30 (36 L); PLT 75 (170 L); AST 83 (66 H); ALP 153; TBIL 0.6; BUN 36; PSL 273 (140 H)

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

BREED

Standard Poodle

SEX

Neutered Male

AGE

11 Years

WEIGHT

N/A

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	<1.3	28-40	40-100	<0.6
PATIENT	--	--	NM	1.2	44.4	79.1	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				
PATIENT	NM	1.3	1.1	--	3.6	3.6	--

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Newton Vet

REFERRING VET

Dr. Kim

INVOICE

16245

DATE

6/24/22

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The mitral valve exhibited subtle subjective vegetative changes consistent with minor endocardiosis. Doppler indicated minor MV insufficiency. 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. Minor TR present on doppler. 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 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or



PATIENT	sediment. 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.
Cooper Neuwith	No overt pathology in the area of the residual prostate.
SPECIES	Normal size and margination was 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 moderate loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Multifocal pinpoint hyperechoic cortical foci were present. These foci, although nonspecific, are suggestive of pinpoint areas of cortical microinfarction, fibrosis or mineralization. The left kidney measured 6.6 cm in length. The right kidney measured 6.0 cm in length.
Canine	
BREED	
Standard Poodle	Adrenal Glands
SEX	The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 2.0 cm in length x 0.63 cm width at the caudal pole.
Neutered Male	The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 2.1 cm in length x 0.84 cm width at the caudal pole.
AGE	Spleen
11 Years	A mass involving the spleen was present and measured approximately 6.0 cm in diameter. The parenchyma of the mass was nonhomogeneous and mildly expansive without areas of cavitation. The non-affected spleen exhibited maintained symmetrical capsule contour and overall, finely textured homogeneous parenchyma. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis.
WEIGHT	
N/A	Liver
INTERPRETED BY	The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion.
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.
IMAGING PERFORMED BY	Gastrointestinal
Shari Reffi, CVT	The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained mild nonshadowing ingesta/chyme without signs of obstruction or foreign material.
HOSPITAL NAME	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.
Newton Vet	Normal visible colon wall layers were present with apparent formed feces in lumen.
REFERRING VET	Pancreas
Dr. Kim	The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.
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DATE	Free Abdomen
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Perisplenic to generalized mild hyperechoic mesentery was present. No evidence of omental masses or obvious lymphadenopathy. The possibility of omental adhesions to the splenic mass cannot be excluded. Mild to moderate volume peritoneal effusion was present, exhibiting mild echogenic changes, consistent with cellularity.

ULTRASONOGRAPHIC FINDINGS

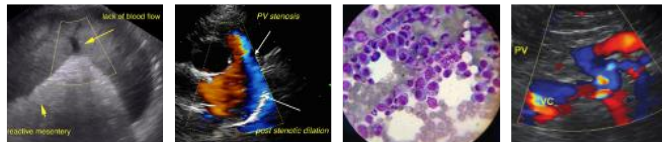
- Overtly normal cardiac structure and function
- Minor MR/TR
- Splenic mass
- Associated perisplenic to generalized mild hyperechoic mesentery and mild volume subjectively cellular peritoneal effusion- consistent with hemoabdomen
- Mild hepatic parenchymal remodeling- benign, no overt evidence of hepatic metastatic disease
- Bilateral chronic renal changes, exhibiting multiple pinpoint hyperechoic cortical foci

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Although histopathology is required for definitive diagnosis, the splenic mass is most suggestive of neoplasia such as sarcoma or other. Benign pathologies are possible yet considered less likely. No overt evidence of intraabdominal or cardiac metastasis. However, in cases of splenic masses, the possibility of non-visualized metastasis/micrometastasis cannot be definitively excluded.

Three-view chest radiographs are recommended to assess for evidence of pulmonary metastasis. If thoracic radiographs are clear, laparotomy with expectation toward splenectomy, gross inspection of the perisplenic omentum and liver would be warranted. Guarded prognosis pending splenic histopathology, if surgery is elected.





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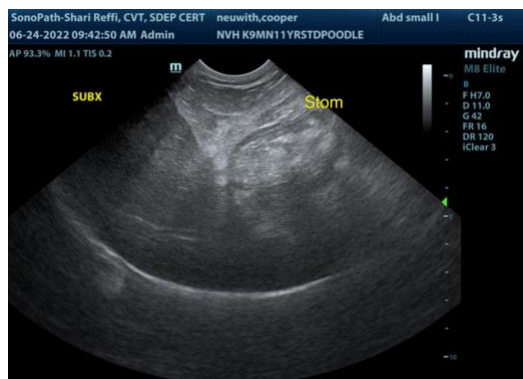
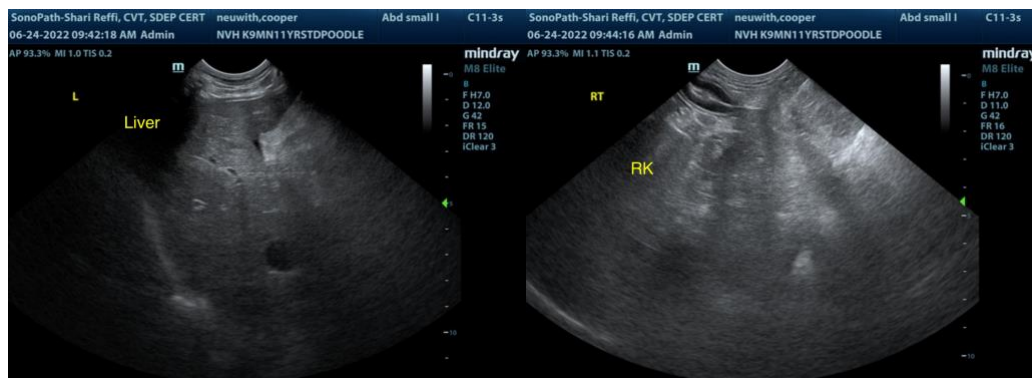
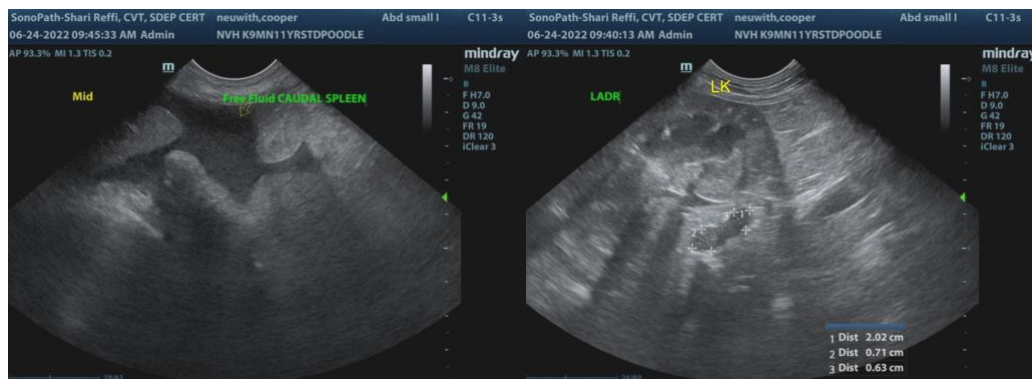
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



PATIENT

Cooper Neuwith

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.

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info@SonoPath.com

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