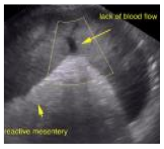
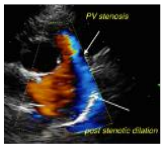
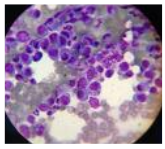
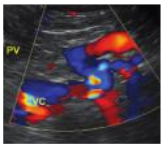
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Jasmine Majos

SPECIES

Canine

BREED

German Shepherd Mix

SEX

Spayed Female

AGE

12 Years

WEIGHT

N/A

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Newton VH

REFERRING VET

N/A

INVOICE

20952

DATE

2/3/23

PRESENTING CLINICAL SIGNS

History: vomiting this morning , marked tachycardia. On carprofen and fish oil.
Abnormal PE/Chem/CBC/UA Results: tbili 2, ALKP 226, GGT 57, Alb 7.2

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

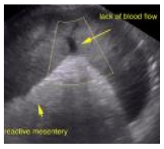
CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
PATIENT	--	--	NM	1.5	25	48	1.0
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (kg)	**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	132	1.8	0.95	--	5.4	6.0	--

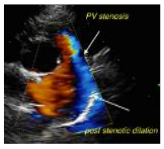
Cardiac Presentation

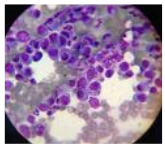
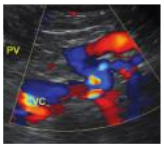
The echocardiogram in this patient demonstrated normal **left atrial** size based on based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole. Mild primarily centralized MR on doppler. No significant dystrophic or vegetative changes were noted. The **left ventricle** demonstrated excessive volume (LVIDd measurement below). Ventricular function was subnormal expressed by the fractional shortening measurement. Myocardium appeared overtly normal in thickness with maintained linear myocardial contour. 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 or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology. No overt TR on doppler. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** 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 regions** were free of masses in the visible window. Overtly normal heart rate at the time of the echocardiogram.

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. Aortic trifurcation was normal.





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

PATIENT

Jasmine Majos

SPECIES

Canine

BREED

German Shepherd Mix

SEX

Spayed Female

AGE

12 Years

WEIGHT

N/A

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Newton VH

REFERRING VET

N/A

INVOICE

20952

DATE

2/3/23

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 8.8 cm in length. The right kidney measured 7.0 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 2.4 cm length x 0.51 cm width at the caudal pole.

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 2.5 cm length x 0.90 cm width at the caudal pole.

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 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.

The gallbladder was non-distended in size with mild echogenic, nonorganized debris. The cystic duct and common bile ducts were normal without evidence of dilation.

Gastrointestinal

The stomach presented intact sonographically unremarkable wall layering. The stomach was markedly distended with retained, primarily anechoic fluid and mild nonshadowing chyme, extending into the area of the pyloric outflow. No overt evidence of pyloric or upper small intestinal mechanical/metabolic pathology or obstructive pyloric mural pathology.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Minor segmental nonshadowing ingesta/chyme was present. No small intestinal obstructive pattern is visualized.

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

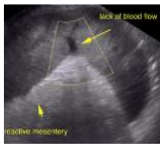
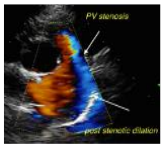
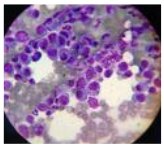
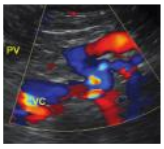
Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Jasmine Majos

SPECIES

Canine

BREED

German Shepherd Mix

SEX

Spayed Female

AGE

12 Years

WEIGHT

N/A

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Newton VH

REFERRING VET

N/A

INVOICE

20952

DATE

2/3/23

ULTRASONOGRAPHIC FINDINGS

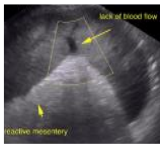
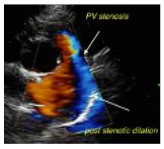
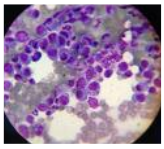
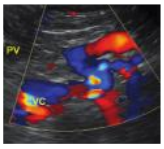
- Left ventricle enlargement with decreased LV contractility
- Normal subjectively compensated left atrium
- Mild centralized MR
- Bilateral chronic renal changes
- Marked hypomotile stomach containing anechoic fluid and mild nonshadowing chyme
- Overtly normal small intestine with mild segmental nonshadowing ingesta/chyme- no evidence of small intestinal mechanical obstructive pattern
- Heterogenous pancreas
- Mild hepatic parenchymal remodeling, mild gallbladder debris (non-mucocele)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The echocardiogram in this patient is suggestive of potential emerging DCM-like criteria, which may be primary in nature or possibly secondary to conditions such as taurine deficiency, myocarditis, hypothyroidism or other metabolic disease. Less likely infiltrative disease, such as lymphoma. Large breed emerging chronic mitral valve disease is possible yet thought less likely. Thyroid status, taurine levels and troponin level could be considered. No overt arrythmia was noted, however, if recurrent or persistent arrythmia, ECG or Holter monitor for further clarification is recommended. Monitoring of baseline resting respiration rate, going forward, is recommended. Pimobendan at 0.3 mg/kg PO BID, given the LV enlargement and decreased LV contractility is warranted. Diuretic therapy would only be suggested if evidence of left sided congestion. Prognosis is variable and sonographic monitoring is advised. Recheck echocardiogram is recommended in 4-6 months or sooner pending ECG assessment if clinically indicted or if clinical signs arise.

The marked gastric distention with retained fluid may indicate marked metabolic gastric stasis. Potential for low grade to chronic pancreatitis may be considered if evidence of cranial abdominal or subxiphoid discomfort on palpation. Technically, the possibility of nonvisualized upper intestinal obstruction cannot be definitively excluded. Gastric evacuation, with therapy for metabolic gastric hypomotility and possible gastritis may prove beneficial. Sonographic reassessment of the upper gastrointestinal tract is suggested if evidence of recurrent or progressive gastric distention.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Jasmine Majos

SPECIES

Canine

BREED

German Shepherd Mix

SEX

Spayed Female

AGE

12 Years

WEIGHT

N/A

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Newton VH

REFERRING VET

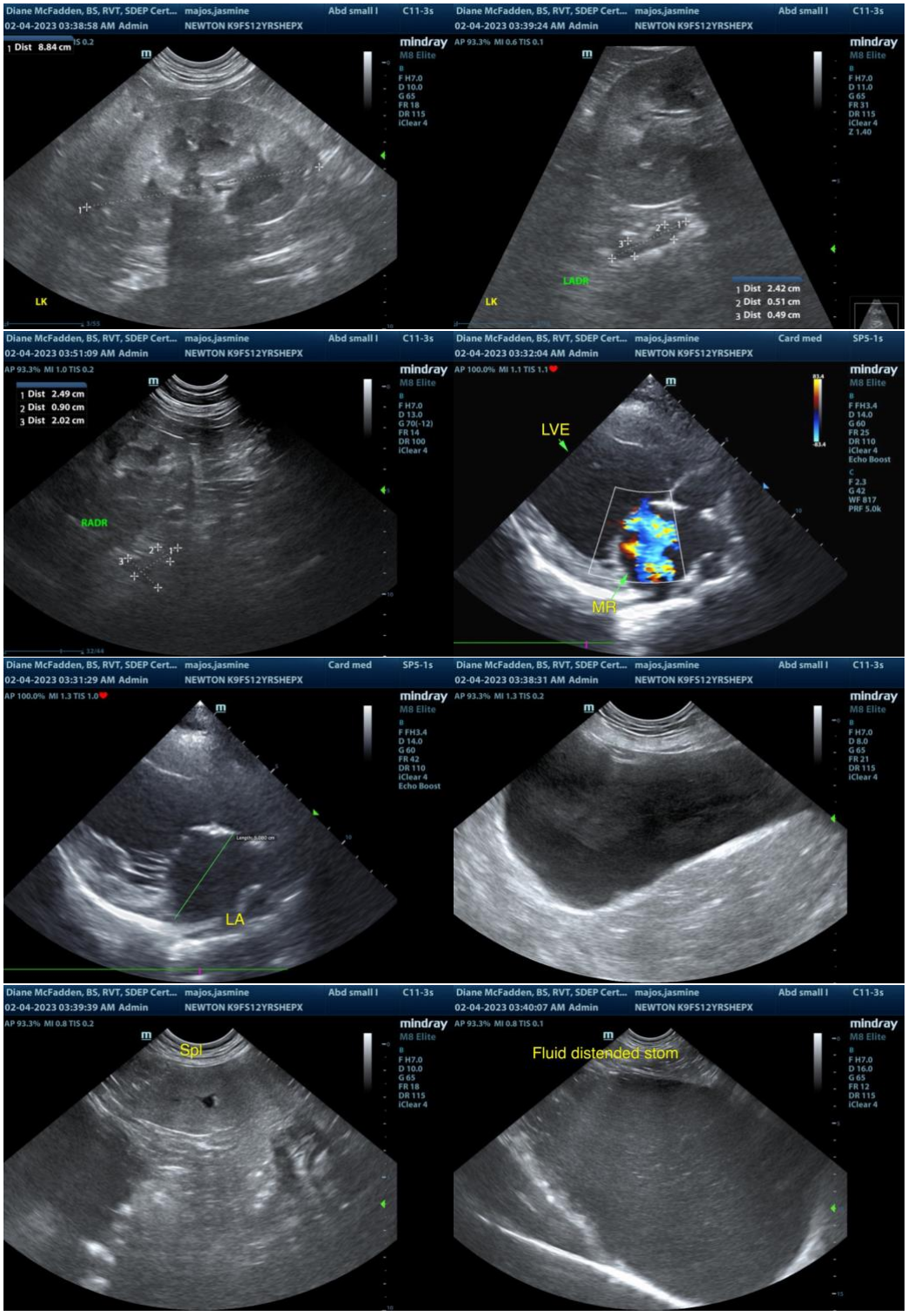
N/A

INVOICE

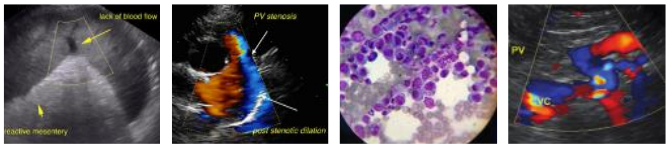
20952

DATE

2/3/23



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Jasmine Majos

SPECIES

Canine

BREED

German Shepherd Mix

SEX

Spayed Female

AGE

12 Years

WEIGHT

N/A

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Newton VH

REFERRING VET

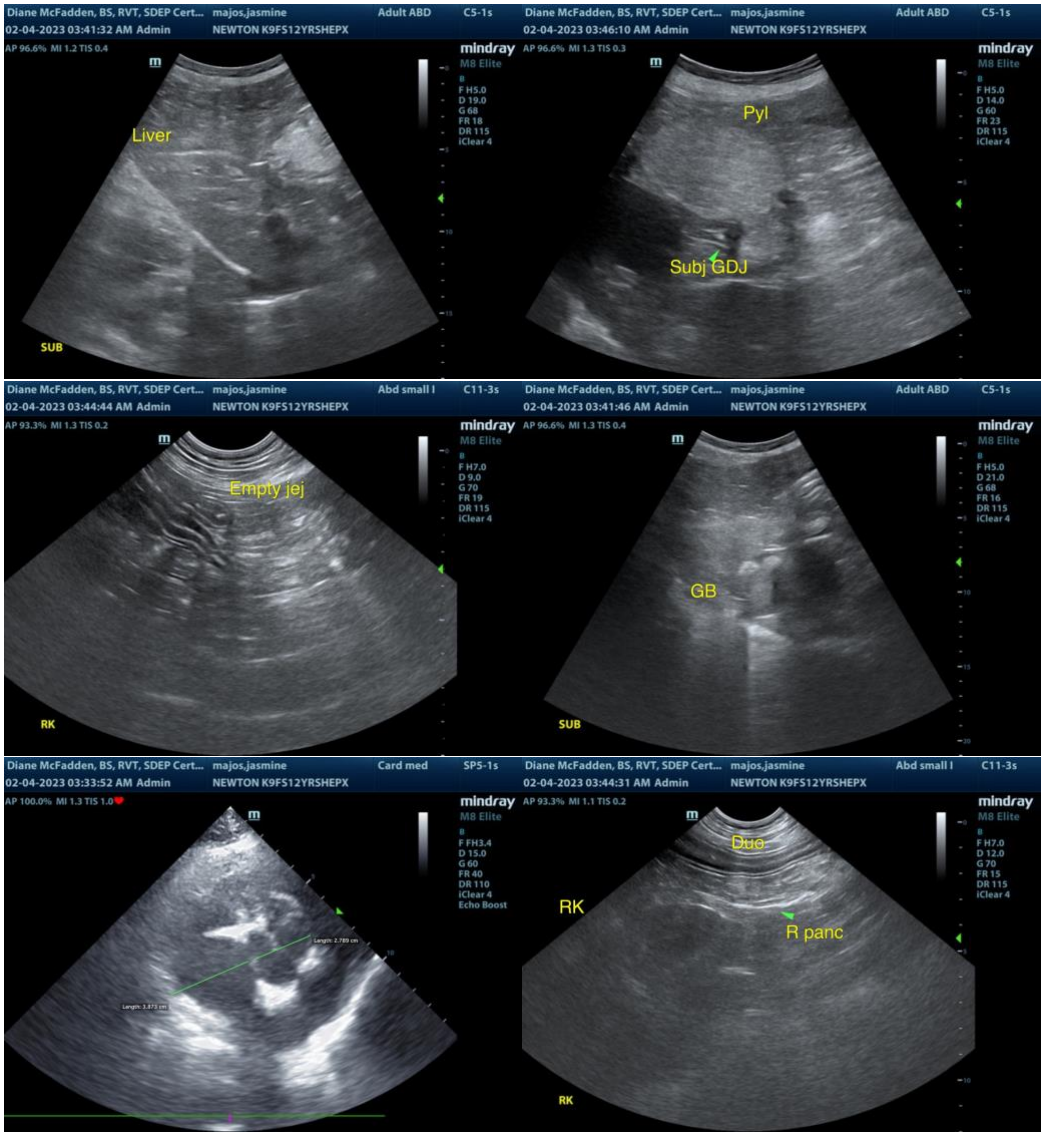
N/A

INVOICE

20952

DATE

2/3/23



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