PATIENT

Ranger Herbst

SPECIES

Canine

BREED

Shepherd Mix

SEX

MN

AGE

8Y

WEIGHT

88lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Newton Veterinary Hospital

REFERRING VET

Dr. Timony

INVOICE

75108

DATE

5-22-26

PRESENTING CLINICAL SIGNS

Severe neutropenia, anemia, thrombocytopenia, clear nasal discharge, tachypnea.
BCS 5/9. Current Medications: Unasyn; Enrofloxacin; Doxycycline; Cerenia
Abnormal PE/Chem/CBC/UA Results: Elevated globulins, WBC 0.3; HCT 22 (improved to 40); Anaplasma +

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT			--	1.23	26	51	0.48
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT**	**LAD** LA MAX 4 Chamber	**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	1.4	1.1	88lbs	4.2	4.0	

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 2 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. No MR on Doppler. 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** was mildly subnormal as evidenced by the fractional shortening measurement. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. Normal measured LVOT velocity. 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. No significant TR 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). Normal measured RVOT velocity. 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 sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

PATIENT

Ranger Herbst

SPECIES

Canine

BREED

Shepherd Mix

SEX

MN

AGE

8Y

WEIGHT

88lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Newton Veterinary Hospital

REFERRING VET

Dr. Timony

INVOICE

75108

DATE

5-22-26

The area of the residual prostate appeared normal and free of pathology.

The area of the iliac trifurcation was free of pathology.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 7.7 cm in length. The right kidney measured 8.2 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 0.58 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 0.77 cm width at the caudal pole.

Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. 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. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

Liver/ Gallbladder

The liver was subjectively normal in size, structure, and contour. Normal hepatic vascular volume was present. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non-distended in size with thin walls and mild nonorganized gallbladder debris. 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 without evidence of retained ingesta, fluid, 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.

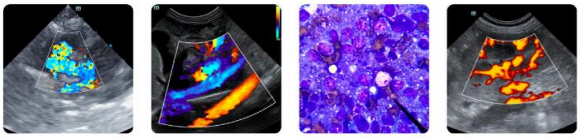
Normal visible colon wall layers were present with formed feces in lumen.

Pancreas

The pancreas base and right pancreas presented prominent size with capsule asymmetry and nonhomogeneous hypoechoic pancreatic. Peri-pancreatic hyperechoic omentum was present. The visible pancreatic duct was normal.

Free Abdomen

No evidence of omental lymphadenopathy, masses, or peritoneal effusion was present.



SonoPath www.SonoPath.com info@sonopath.com 800.838.4268

PATIENT

Ranger Herbst

SPECIES

Canine

BREED

Shepherd Mix

SEX

MN

AGE

8Y

WEIGHT

88lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Newton Veterinary Hospital

REFERRING VET

Dr. Timony

INVOICE

75108

DATE

5-22-26

ULTRASONOGRAPHIC FINDINGS

- Normal echocardiogram with mild LV hypocontractility - systemic disease, athletic state, hypothyroidism may present in this manner. DCM criteria was not met.
- Prominent nonhomogeneous pancreas with peri-pancreatic hyperechoic omentum - mild active to chronic active pancreatitis, reactive peri-pancreatic omental changes. Mild potential for pancreatic neoplasia or emerging peri-pancreatic peritonitis.
- Sonographically normal spleen/liver.
- Normal gastrointestinal tract.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Despite LV hypocontractility, there is no evidence of structural or functional cardiomyopathy or arrythmia as a contributing factor to the patient's clinical signs. No evidence of neoplastic criteria. Further assessment of the CBC abnormalities may include CBC pathology review in conjunction with infectious disease serology.

Empirical therapy for probable pancreatitis, despite lack of gastrointestinal signs and given reported cranial abdomen/subxiphoid discomfort on palpation, is recommended. Continued broad spectrum antibiotics indicated given the degree of neutropenia and coverage for possible sepsis. Some or all of the following protocol may be considered empirically:

IMHA/Infectious Anemia/Thrombocytopenia/Evans Syndrome

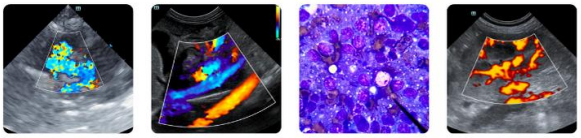
(*Note: ensure no underlying neoplasia as IMHA/Evans syndrome can occur as paraneoplastic manifestation especially in lymphoma/round cell neoplasia*)

Anemia +/- thrombocytopenia with spherocytes/autoagglutination in dogs and hyperbilirubinemia, bilirubinuria. (*NOTE: cats do not get spherocytes in IMHA*)
Consider Onion/Garlic derivative ingestion if Heinz bodies present.

Prednisone (K9) Prednisolone (Feline): 2 mg/kg Sid/Bid initially x 3 weeks then attempt taper
Aspirin 0.5 mg/kg Sid owing to hypercoagulable state
Sucralfate 0.5-1 g po tid dogs, 0.5 g bid cats in slurry
Doxycycline if infectious suspected clinically or based on CBC path review:
Dogs, Cats: 10 mg/kg p.o. q24h with food or water bolus in cats

Long-term management dogs: Azothiaprine 2 mg/kg Sid or Cyclosporine 10mg/kg po sid bid

New Jersey Mobile
FUELED BY SONOPATH VETERINARY ULTRASOUND



Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™
www.SonoPath.com
info@sonopath.com
800.838.4268

PATIENT

Ranger Herbst

SPECIES

Canine

BREED

Shepherd Mix

SEX

MN

AGE

8Y

WEIGHT

88lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Newton Veterinary Hospital

REFERRING VET

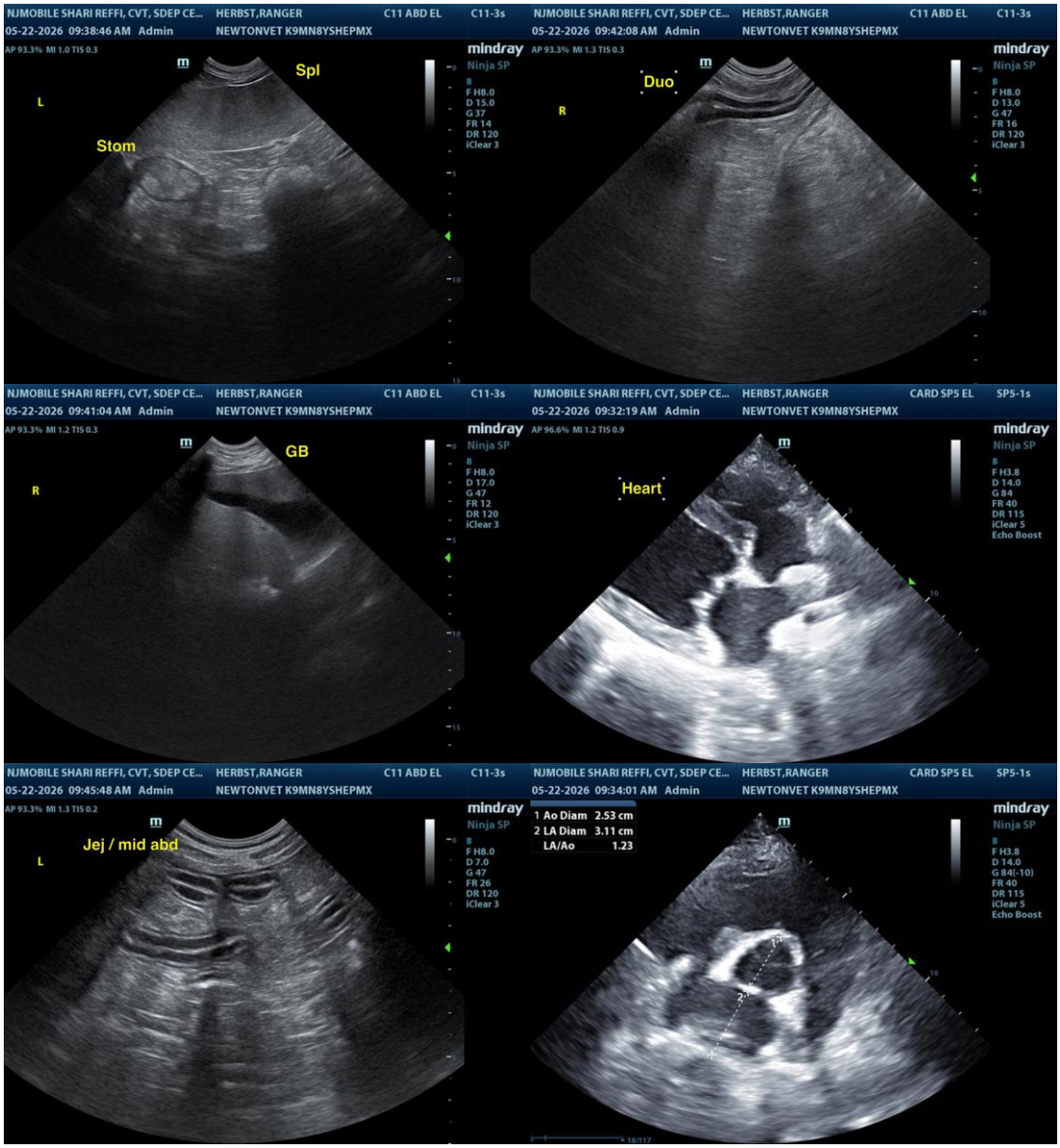
Dr. Timony

INVOICE

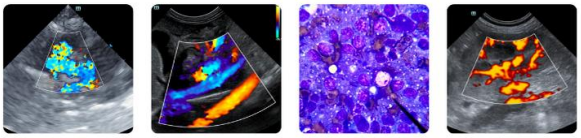
75108

DATE

5-22-26



New Jersey Mobile
FUELED BY SONOPATH VETERINARY ULTRASOUND



Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™
www.SonoPath.com
info@sonopath.com 800.838.4268

PATIENT

Ranger Herbst

SPECIES

Canine

BREED

Shepherd Mix

SEX

MN

AGE

8Y

WEIGHT

88lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Newton Veterinary Hospital

REFERRING VET

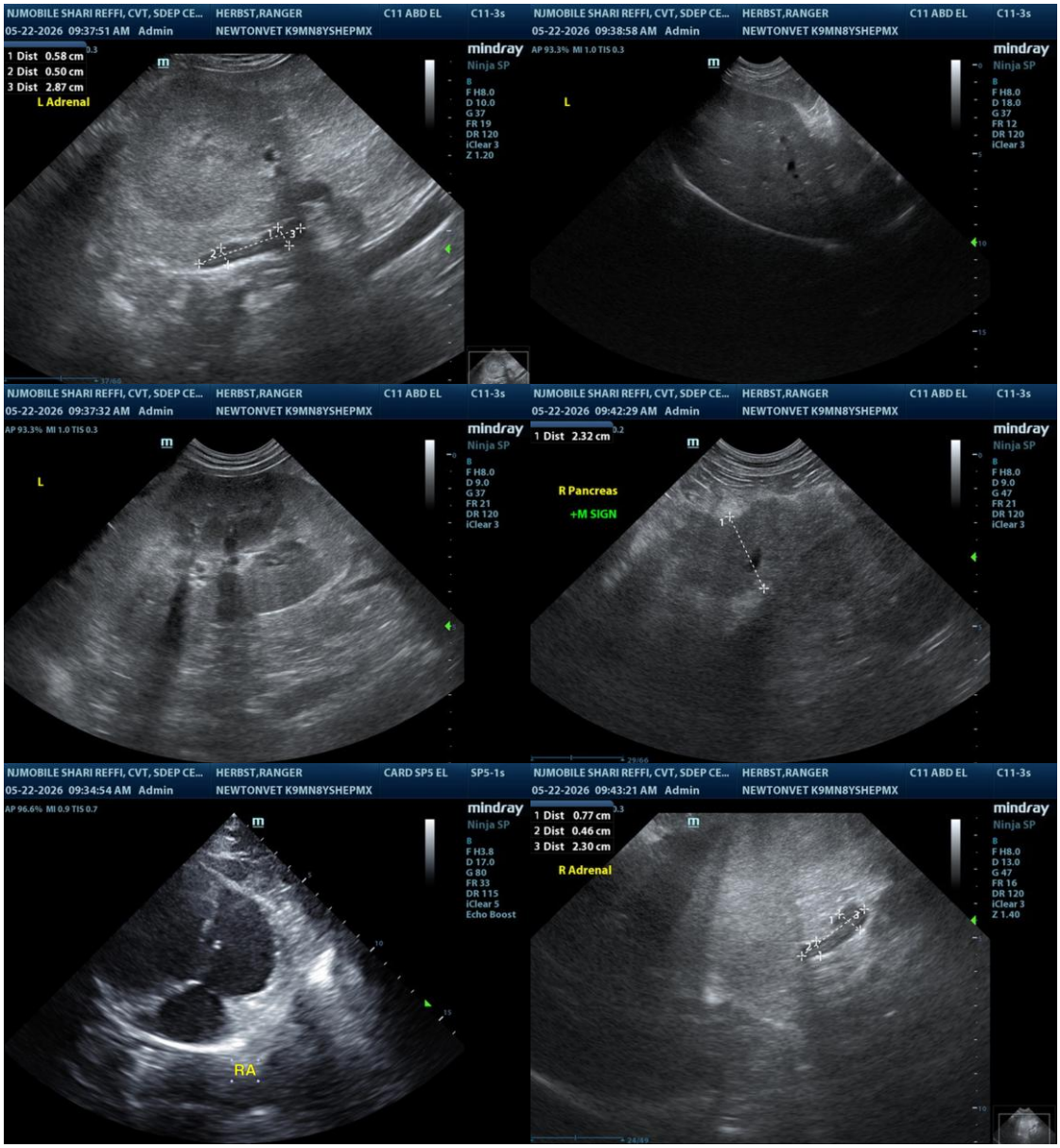
Dr. Timony

INVOICE

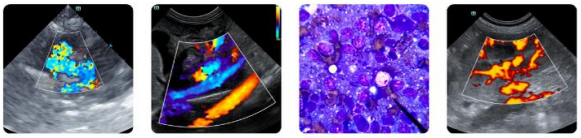
75108

DATE

5-22-26



New Jersey Mobile
FUELED BY SONOPATH VETERINARY ULTRASOUND



Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™
www.SonoPath.com
info@sonopath.com 800.838.4268

PATIENT

Ranger Herbst

SPECIES

Canine

BREED

Shepherd Mix

SEX

MN

AGE

8Y

WEIGHT

88lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Newton Veterinary Hospital

REFERRING VET

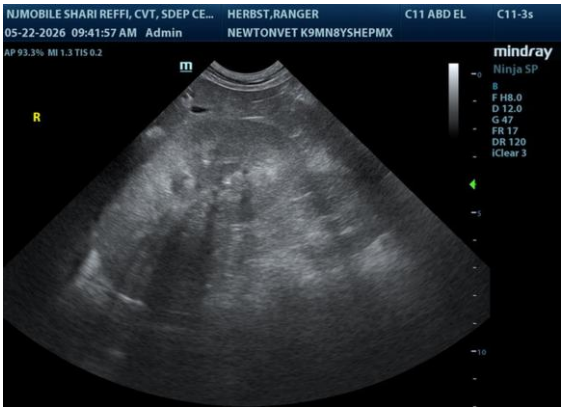
Dr. Timony

INVOICE

75108

DATE

5-22-26



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.

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)
info@sonopath.com