



**PATIENT**

Hunter Bergeron

**SPECIES**

Feline

**BREED**

Domestic Medium Hair

**SEX**

Neutered male

**AGE**

12 years

**WEIGHT**

**PRESENTING CLINICAL SIGNS**

History: Patient with history as at E.R. yesterday for vomiting and anorexia. Current med: Methimazole.

Abnormal PE/Chem/CBC/UA Results: Glucose 198, BUN 11, glob. 5.6, ALT 10, ALP 11, amylase 371, lymph 9.4, monos 1.99, eos 0.01, platelets 81.

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate LA measurements. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. The **left ventricle** presented normal 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 and angles 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 or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinetics. 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). B lines were noted as well as mild pleural effusion in the peripheral fields.

**INTERPRETED BY**

Eric Lindquist, DMV,  
DABVP, Cert. IVUSS,  
CEO of SonoPath.com

**IMAGING PERFORMED BY**

Kelly Vazquez, CVT

**HOSPITAL NAME**

Midland Park VH

**REFERRING VET**

Dr. Shokoff

**INVOICE**

43940

**DATE**

4/24/23

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT		187	0.48	1.3	0.48	35	69
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Sisson)	LA 2D 4-chamber long axis AS to FW (Sisson) (cm)	LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)	
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7	<1.6	<1.3	40-60	
PATIENT	1.2	1.4	1.3	1.2	1.48	NM	
Adapted from June Boon, Veterinary Echocardiography, 1998 Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							



**PATIENT**

Hunter Bergeron

**SPECIES**

Feline

**BREED**

Domestic Medium Hair

**SEX**

Neutered male

**AGE**

12 years

**WEIGHT**

**INTERPRETED BY**

Eric Lindquist, DMV,  
DABVP, Cert. IVUSS,  
CEO of SonoPath.com

**IMAGING PERFORMED BY**

Kelly Vazquez, CVT

**HOSPITAL NAME**

Midland Park VH

**REFERRING VET**

Dr. Shokoff

**INVOICE**

43940

**DATE**

4/24/23

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right kidney measured 3.97 cm. The left kidney measured 3.91 cm.

**Adrenal Glands**

The **adrenal glands** were uniform, yet bilaterally swollen and hypoechoic. This is most consistent with stress-induced hyperplasia. The right adrenal gland measured 0.55 cm. The left adrenal gland measured 0.5 cm.

**Spleen**

The **spleen** was largely smooth with subtle heterogeneous parenchymal changes while maintaining normal echogenic relationship to the liver and kidney. These changes are consistent with normal age-related alteration. The capsule was smooth without noticeable impingement from within the spleen or from pathology in the adjacent abdomen. The splenic vasculature demonstrated normal volume without signs of congestion or significant contraction. No evidence of active acute or chronic inflammatory, neoplastic, or infarctual changes was noted. The spleen measured 0.84 cm.

**Liver**

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some age-related parenchymal remodeling was noted but likely not clinically significant at this time. The hepatic veins were dilated. The gallbladder presented some dependent debris with essentially normal contour. The cystic and common bile ducts were normal. No overt evidence of active inflammatory, infiltrative or regenerative pathology was noted but should be paired with current or past LE elevations regarding any clinical significance to this presentation. The hepatic lymph nodes were unremarkable. Caudal lung fields were noted through the diaphragm and revealed multiple B lines and coalescing shower curtain lung pattern with a minor amount of pleural effusion.

**Gastrointestinal**

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine



**PATIENT**

Hunter Bergeron

demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

**SPECIES**

Feline

**Pancreas**

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

**BREED**

Domestic Medium Hair

**ULTRASONOGRAPHIC FINDINGS**

**SEX**

Neutered male

Non-cardiogenic pleural effusion and multi-focal lung pathology.

No evidence of abdominal disease.

**AGE**

12 years

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

I recommend chest CT in this patient to assess pulmonary disease. There is no evidence of cardiac component. The pleural effusion was minor and would be difficult to sample at this point. Mild passive congestion pattern in the liver is likely owing to obstructive, caudal thoracic disease.

**WEIGHT**

**ABOUT SONOPATH CT SERVICES:**

**SonoPath CT Services** are offered at the SonoPath Imaging and Veterinary Education Center, 141 Main St (rt 206), Andover, New Jersey, a 20-minute drive west on route 80/206 North from the route 80/287 interchange/Parsippany, New Jersey. More information can be found at <https://sonopath.com/resources/sonopaths-teleconsultation-services-and-sdep-certification/sonopath-ct-services>

**INTERPRETED BY**

Eric Lindquist, DMV,  
DABVP, Cert. IVUSS,  
CEO of SonoPath.com

**IMAGING PERFORMED BY**

Kelly Vazquez, CVT

**HOSPITAL NAME**

Midland Park VH

**REFERRING VET**

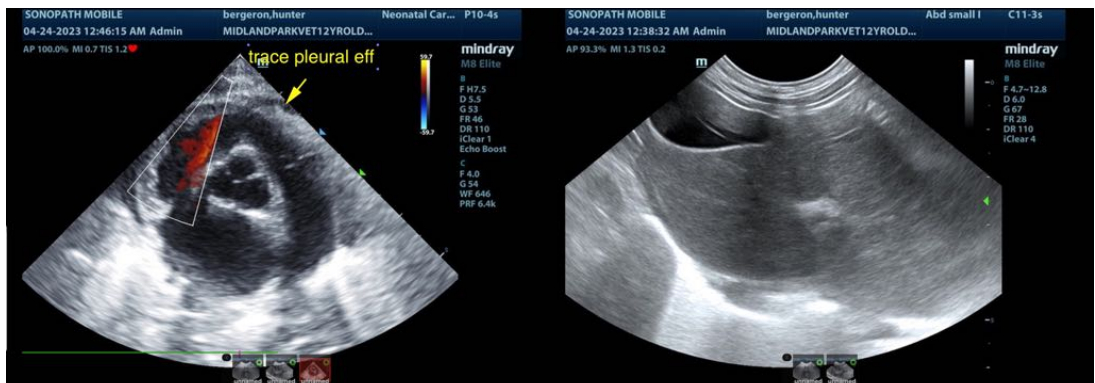
Dr. Shokoff

**INVOICE**

43940

**DATE**

4/24/23





**PATIENT**

Hunter Bergeron

**SPECIES**

Feline

**BREED**

Domestic Medium Hair

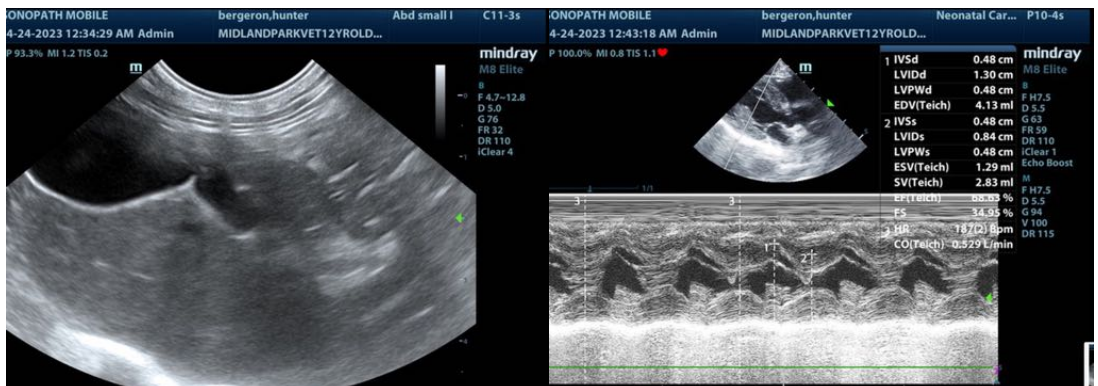
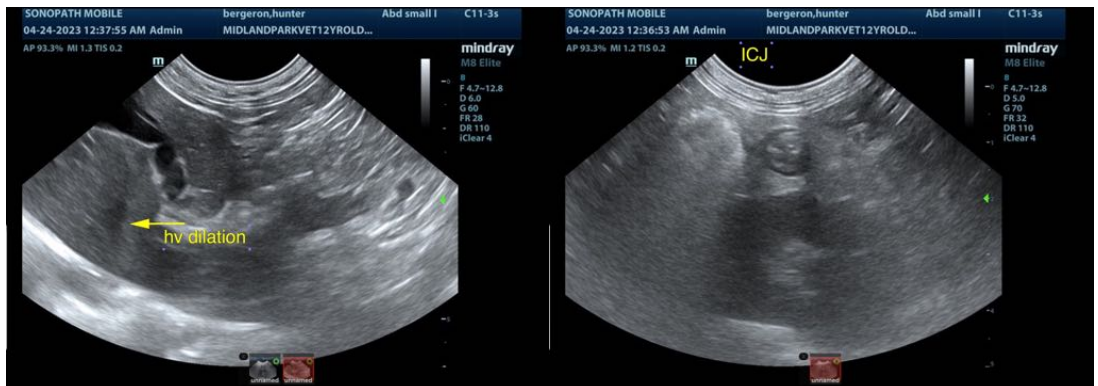
**SEX**

Neutered male

**AGE**

12 years

**WEIGHT**



**INTERPRETED BY**

Eric Lindquist, DMV,  
DABVP, Cert. IVUSS,  
CEO of SonoPath.com

**IMAGING PERFORMED BY**

Kelly Vazquez, CVT

**HOSPITAL NAME**

Midland Park VH

**REFERRING VET**

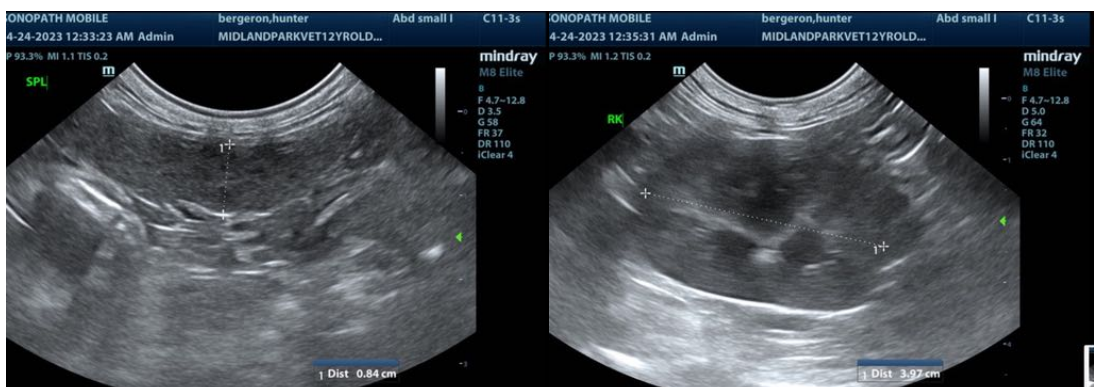
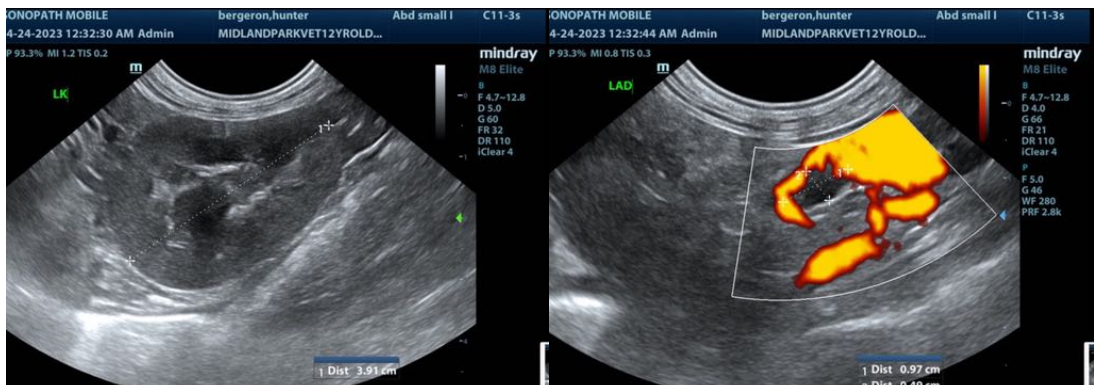
Dr. Shokoff

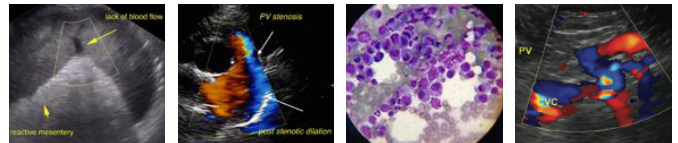
**INVOICE**

43940

**DATE**

4/24/23





**PATIENT**

Hunter Bergeron

**SPECIES**

Feline

**BREED**

Domestic Medium Hair

**SEX**

Neutered male

**AGE**

12 years

**WEIGHT**

**INTERPRETED BY**

Eric Lindquist, DMV,  
DABVP, Cert. IVUSS,  
CEO of SonoPath.com

**IMAGING PERFORMED BY**

Kelly Vazquez, CVT

**HOSPITAL NAME**

Midland Park VH

**REFERRING VET**

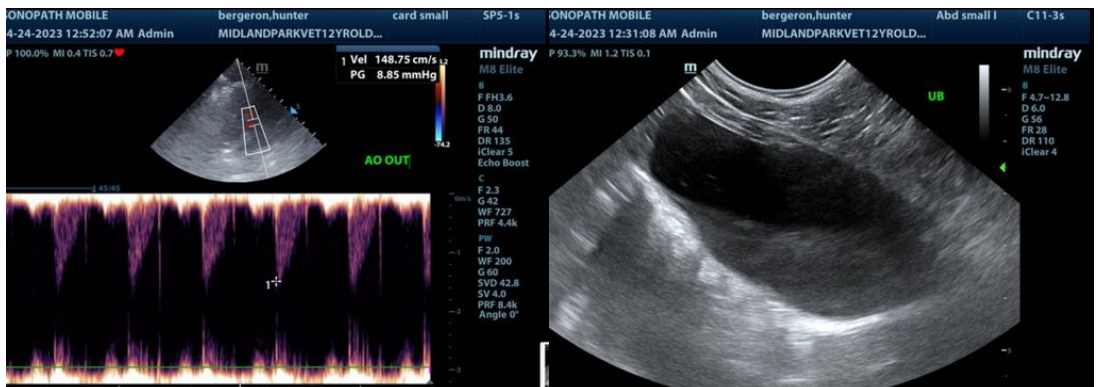
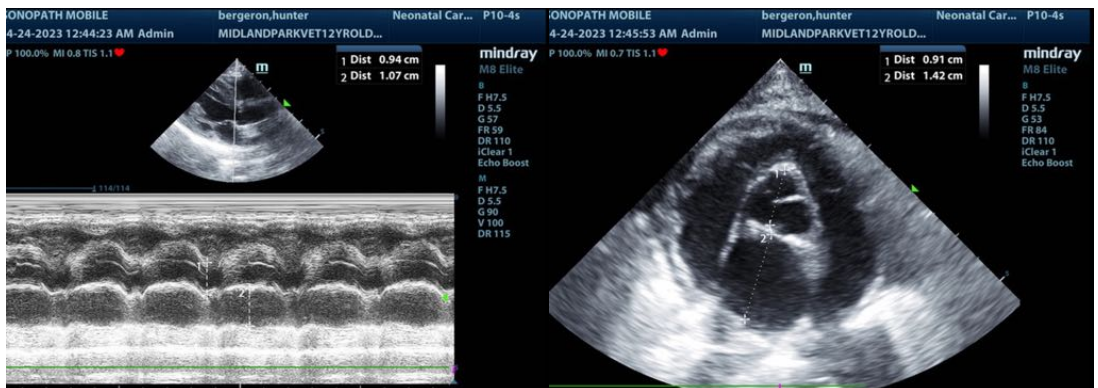
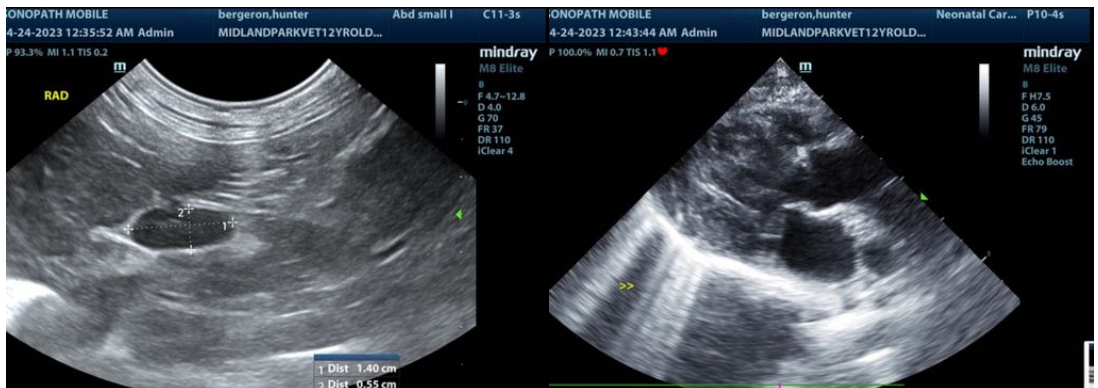
Dr. Shokoff

**INVOICE**

43940

**DATE**

4/24/23



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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com

Info@SonoPath.com