



PATIENT

Maddy Greer

SPECIES

Feline

BREED

DLH

SEX

Spayed Female

AGE

10 Years

WEIGHT

14 Pounds

PRESENTING CLINICAL SIGNS

History: Patient came in unable to move her back legs. Tried to jump at home and back legs just splayed out. Unable to walk. Hind limbs cold, with weak pulses.

Abnormal PE/Chem/CBC/UA Results: Chem : wnl

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

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	--	NM	0.5	1.9	0.5	30	--
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	1.5	1.7	1.5	1.10		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							

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Nicole Gotfredson

HOSPITAL NAME

Buffalo VC

REFERRING VET

Dr. Bessler

INVOICE

15008

DATE

5/2/22

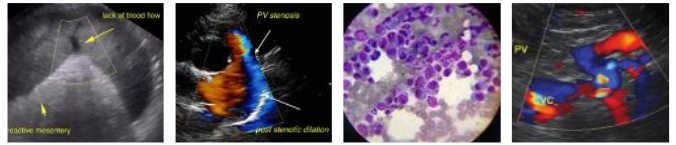
Cardiac Presentation

The **left atrial** size measured the upper limits of normal to slightly enlarged. **Mitral** insufficiency noted. 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). No visible **pericardial** or free pleura fluid was noted or extra cardiac pathology in the visible planes. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.

The **transdiaphragmatic view** revealed shower curtain lung pattern, indicative of alveolar disease.

Iliac trifurcation revealed normal flow, other than subnormal vena cava volume. Hydration status should be evaluated.

Urinary System



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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 were noted. Ureteral papillae were normal.

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The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some mild 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 3.0 cm.

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Adrenal Glands

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The regions of the adrenal glands were imaged. No evidence of pathology.

Spleen

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The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

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Liver

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident. Comet tail lung pattern was noted in this patient.

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Gastrointestinal

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The **stomach** was filled with hairball type density from the pylorus to the gastroesophageal inlet. Some transit of chyme into the small intestine was present.

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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.

REFERRING VET

Dr. Bessler

ULTRASONOGRAPHIC FINDINGS

- Unclassified cardiomyopathy with prominent left atrial size
- Comet tail lung pattern, indicative of pulmonary disease
- Hairball type density in the stomach
- Age-related renal changes

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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This is not a straightforward left sided congestive heart failure. Blood pressure measurements recommended to assess for hypotension. Chest radiographs indicated to assess alveolar disease. Full



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CNS examination warranted, as a spinal thrombus may be an issue. No evidence of iliac thrombus at this time. Low dose Lasix trial could be considered, however, this should be based on hydration status, as this would be a test to assess if the heart is playing a role, however, I do not believe that the heart is the primary issue in this case. Weak pulses may be owing to systemic hypotension as opposed to thromboembolic event, as the iliac arteries appear to be patent.

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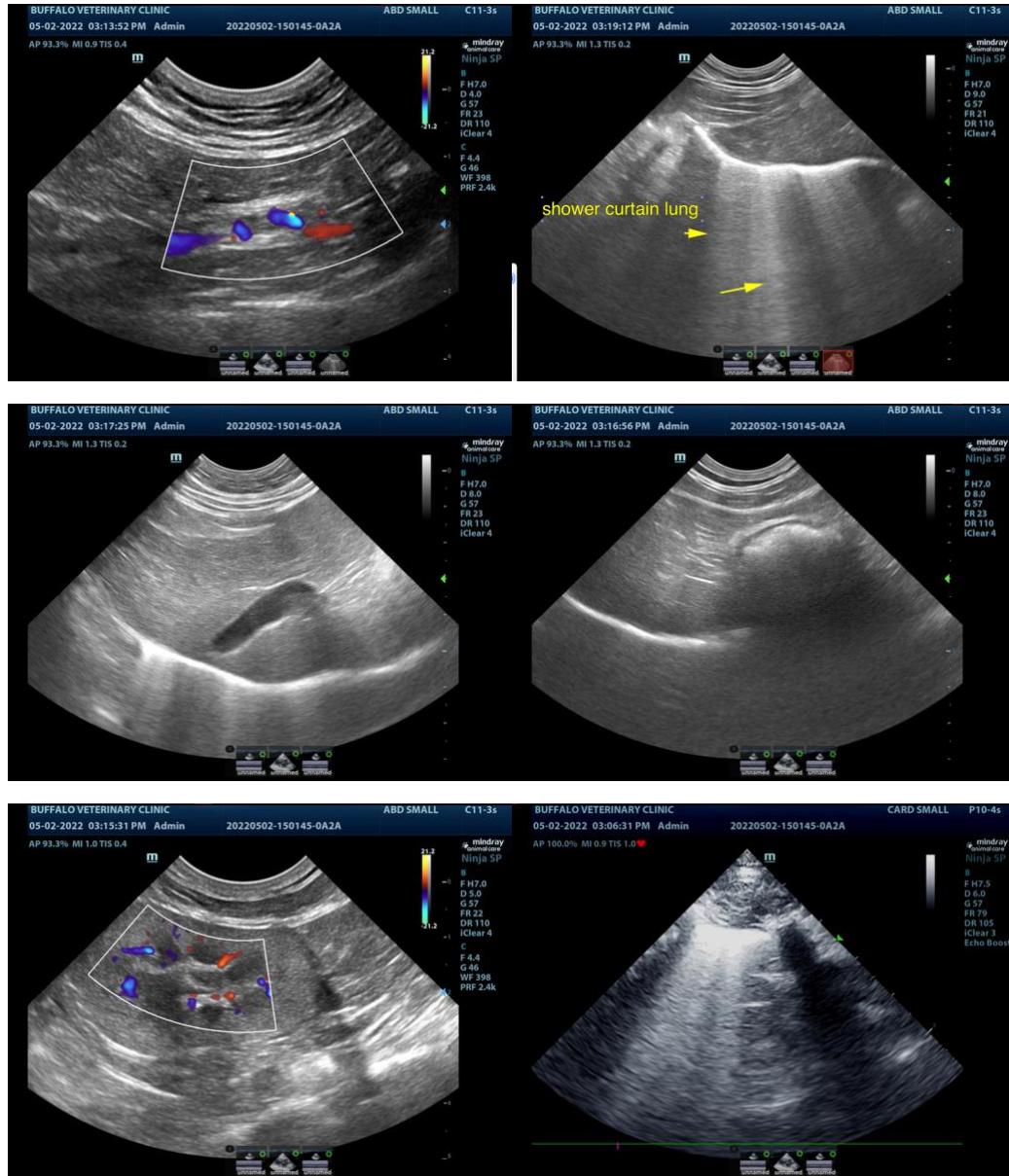
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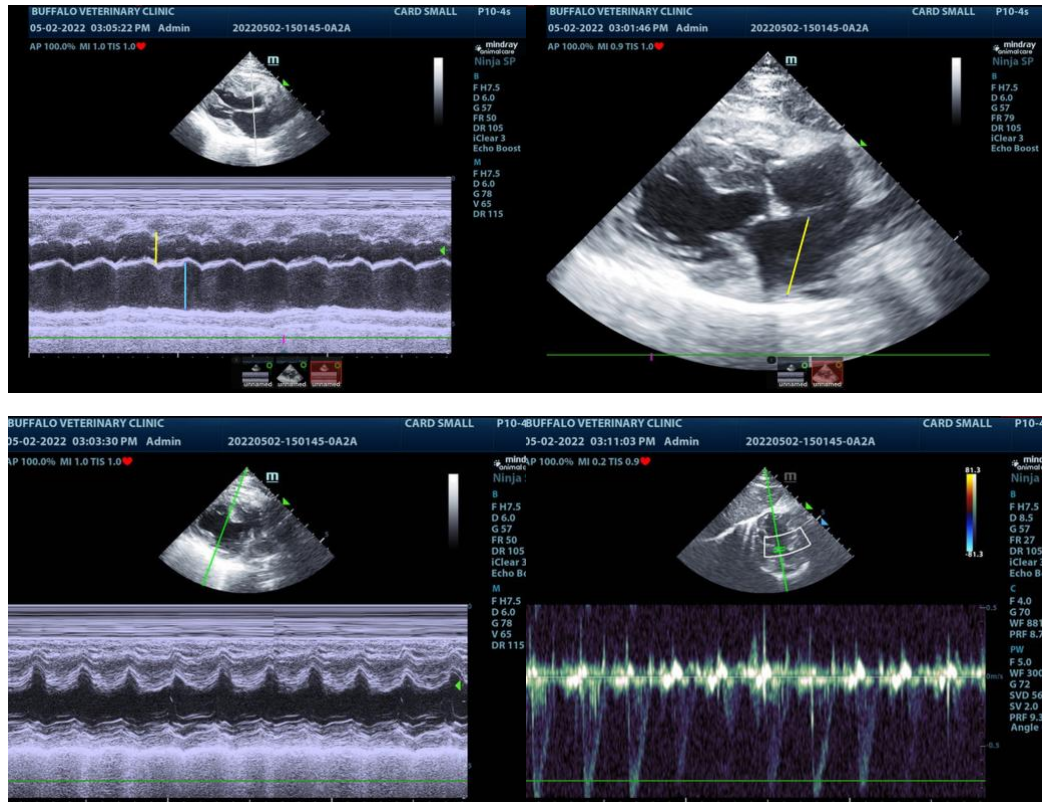
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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