



PATIENT

Bean Parsons

SPECIES

Feline

BREED

Domestic Shorthair

SEX

Neutered male

AGE

9 years

WEIGHT

7.6 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Leal

HOSPITAL NAME

Blairstown AH

REFERRING VET

Dr. Lovell

INVOICE

46709

DATE

8/22/23

PRESENTING CLINICAL SIGNS

History: Weight loss, acute onset vestibular disease, cardiomyopathy, ascites FIV positive ascites
Current Meds: Clopidogrel 1 tab benazepril 2.5mg sid. furosemide 6.75 mg sid. potassium gluconate 468 mg bid. Pimobendan 1.25 mg. prednisone 5 mg every 2 - 3 days.
Abnormal PE/Chem/CBC/UA Results: HCT= 23 WBC = 1.1 7 platelets=69 elevated UPC

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

The echocardiogram in this patient demonstrated concentric hypertrophy with mitral and tricuspid insufficiency. Severe right and left atrial enlargement was noted. Pulmonary edema was noted in the lung fields as well as pericardial effusion.

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	0.77	1.2	0.66	50	
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	2.5		2.3 max				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							

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** presented a relatively uniform cortical hyperechogenicity when compared to the renal medulla, spleen and liver. No overt masses were noted. Corticomedullary definition was nebulous and the ratio favored the cortex slightly. The ureters were not visible and assumed to be normal. These changes are most consistent with chronic interstitial nephritis yet infiltrative disease could not be entirely ruled out without biopsy though neoplasia is not suspected. The left kidney measured 3.51 cm. A cortical infarct was noted at the cranial pole of the right kidney.



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Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.38 cm. The right adrenal gland measured 0.36 cm.

Spleen

The **spleen** was largely normal with a focal, hypoechoic target lesion that measured 0.73 cm. Other subtle hypoechoic, nodular changes were noted in the spleen.

Liver

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Dilated hepatic veins were noted with passive congestion. This is owing to thoracic disease. 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.

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

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. The pancreas was floating in the ascites.

Free Abdomen

A large amount of ascites was noted in this patient.



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ULTRASONOGRAPHIC FINDINGS

Left and right sided heart failure.

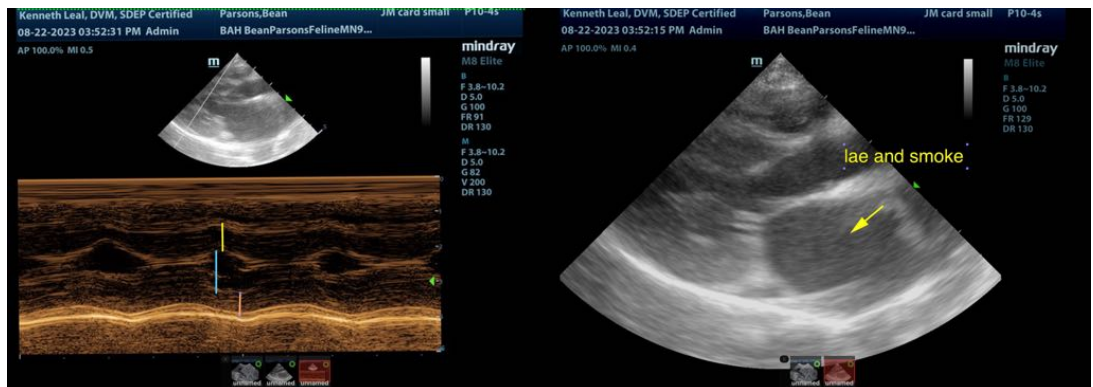
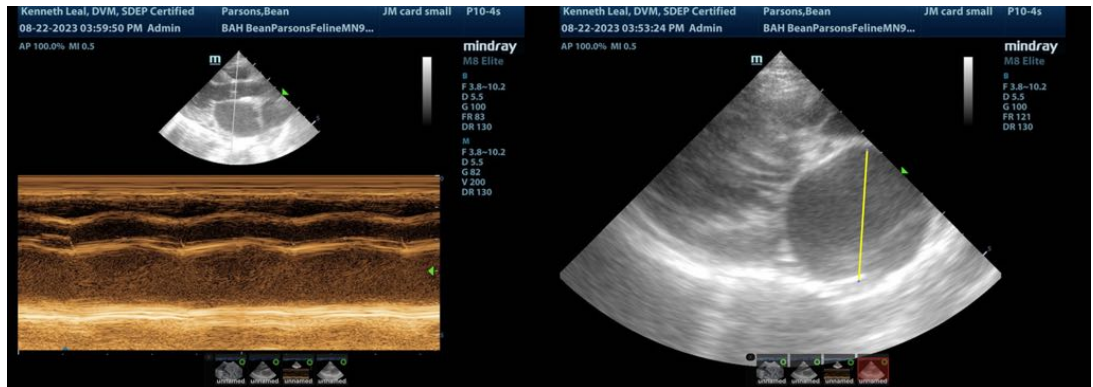
Hypertrophic cardiomyopathy phenotype with smoke.

Bilateral atrial enlargement.

Renal infarcts and focal splenic nodules, concern for concurrent round cell neoplasia or hemangiosarcoma.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient is at high risk for sudden death especially given the multiple medications in this patient. Spironolactone can be added to the protocol as well as increasing Lasix up to 12.5 mg b.i.d. However, the prognosis is poor. Humane euthanasia should be considered if quality of life is not able to be maintained in this patient.





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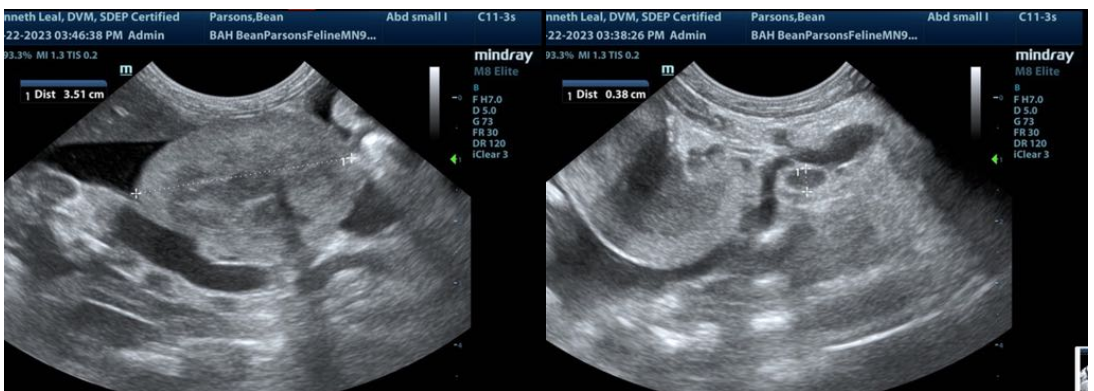
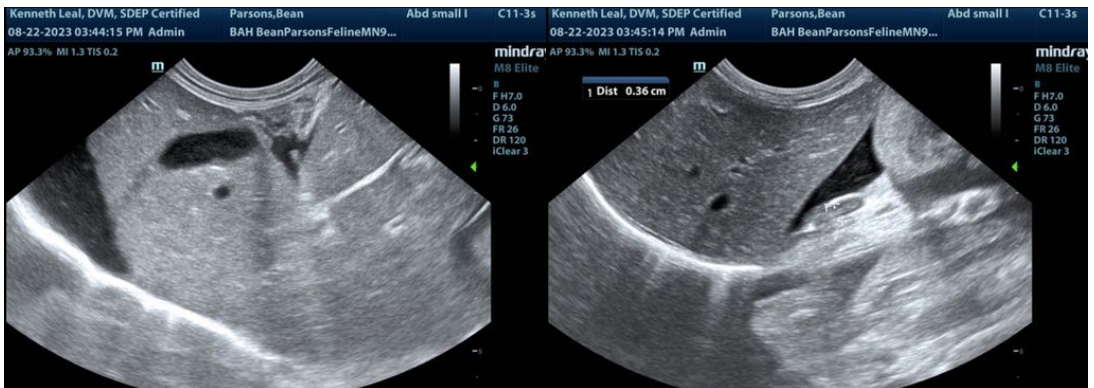
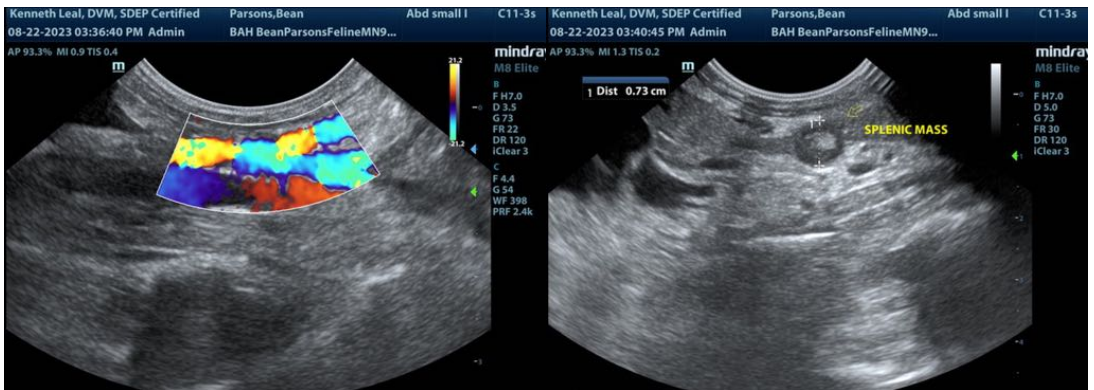
Dr. Lovell

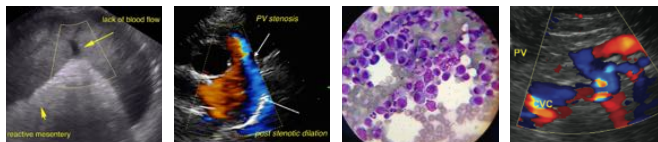
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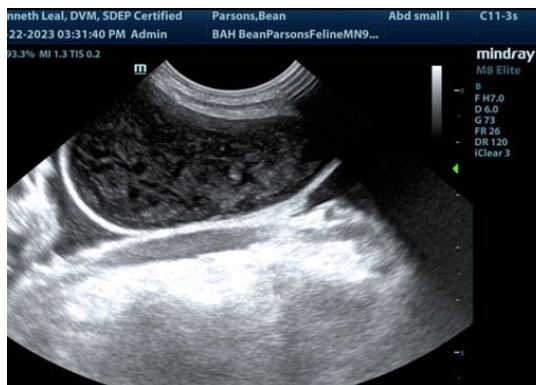
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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