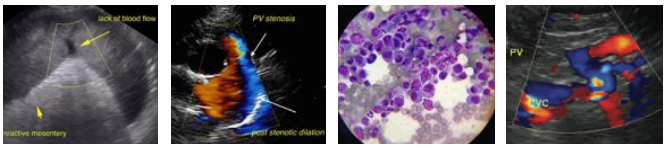
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
SonoPath.com
1-800-838-4268 info@sonopath.com



PATIENT

Pema Peffley

SPECIES

Canine

BREED

Terrier Mix

SEX

Spayed Female

AGE

12 years

WEIGHT

9 lbs

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Green

HOSPITAL NAME

Healing Spirit Animal Wellness

REFERRING VET

Dr. Green

INVOICE

31448

DATE

7/2/22

PRESENTING CLINICAL SIGNS

History: Presented 1 month ago due to recent onset cough and tachypnea. Radiographs showed cardiomegaly, no evidence of CHF, mild diffuse broncho-interstitial pattern, gas distention of the stomach and cecum. Pema has since developed ptyalism , no v/d
Abnormal PE/Chem/CBC/UA Results: grade v/vi left apical systolic murmur, moderate to marked ptyalism, intermittent tachypnea with increased respiratory effort, sensitive on abdominal palpation.

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 normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The left kidney measured 3.0 cm. The right kidney measured 4.0 cm.

Adrenal Glands

The regions of the **adrenal glands** were imaged with no evidence of pathology.

Spleen

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 was noted.

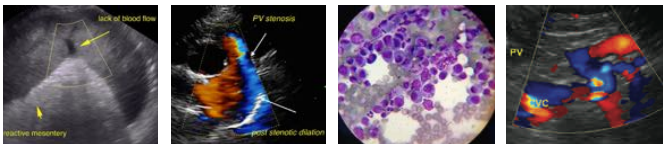
Liver

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 was mildly over distended with suspended and dependent debris, yet not to the level of emerging mucocele. However, the sludge appears to be mildly excessive. No adjunctive inflammation was noted.

Gastrointestinal

The **stomach** revealed a minor amount of fluid filled fundic lumen. The small intestines and colon were unremarkable.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Pema Peffley

SPECIES

Canine

BREED

Terrier Mix

SEX

Spayed Female

AGE

12 years

WEIGHT

9 lbs

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Green

HOSPITAL NAME

Healing Spirit Animal Wellness

REFERRING VET

Dr. Green

INVOICE

31448

DATE

7/2/22

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.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

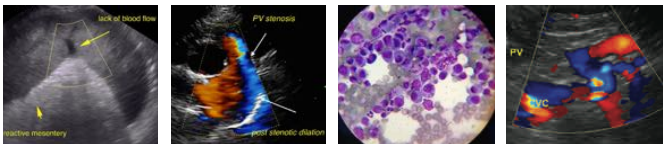
The echocardiogram in this patient demonstrated enlarged **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Prolapse of the anterior mitral valve leaflet was noted. Doppler indicated measurable insufficiency. 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** 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 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. Minor **tricuspid** insufficiency is noted on color flow assessment. 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. No echographically detectable evidence of infiltrative disease was visible. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.

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			1.5	2.2	40	80	0.1
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT**	**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			1.1	9 lbs		2.8	

ULTRASONOGRAPHIC FINDINGS

Mitral insufficiency.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Pema Peffley

SPECIES

Canine

BREED

Terrier Mix

SEX

Spayed Female

AGE

12 years

WEIGHT

9 lbs

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Green

HOSPITAL NAME

Healing Spirit Animal Wellness

REFERRING VET

Dr. Green

INVOICE

31448

DATE

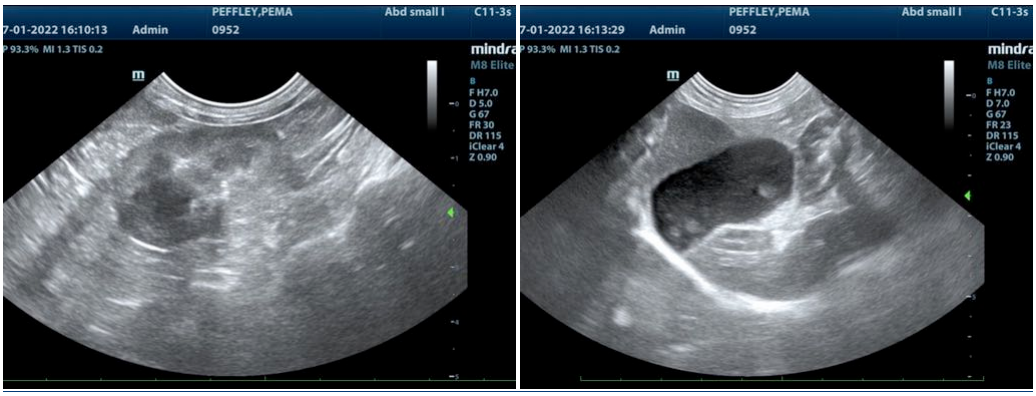
7/2/22

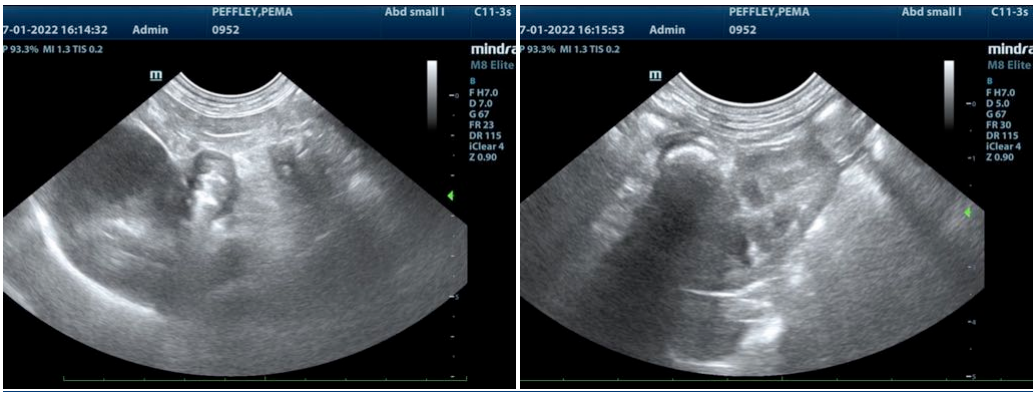
Advanced stage B2+ to C1 valvular disease. Early CHF is likely given the cough, tachypnea and severe volume overload and mitral prolapse.

Unremarkable abdomen.

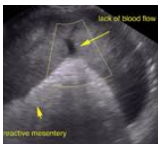
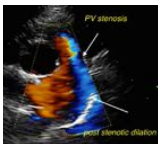
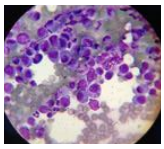
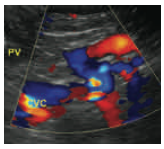
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cough is likely cardiogenic owing to volume overload of the left atrium and left ventricle. I recommend fairly aggressive therapy with Pimobendan at 0.3 mg/kg b.i.d, ace inhibitor at 0.5 mg/kg s.i.d. progressing to b.i.d., Spironolactone at 1-2 mg/kg b.i.d. +/- Lasix at 1-2 mg/kg b.i.d. Recheck echocardiogram is recommended in 2 weeks. I recommend to monitor blood pressure measurements, BUN, creatinine, cough and tachypnea as well as radiographs.





SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Pema Peffley

SPECIES

Canine

BREED

Terrier Mix

SEX

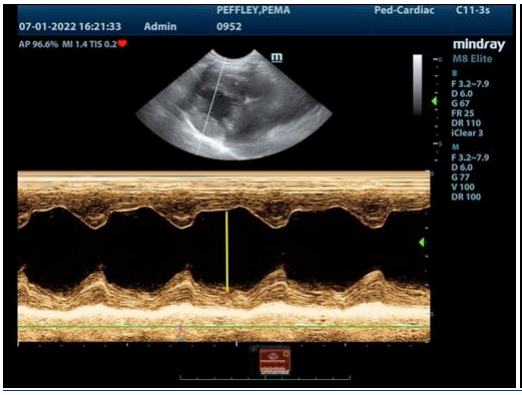
Spayed Female

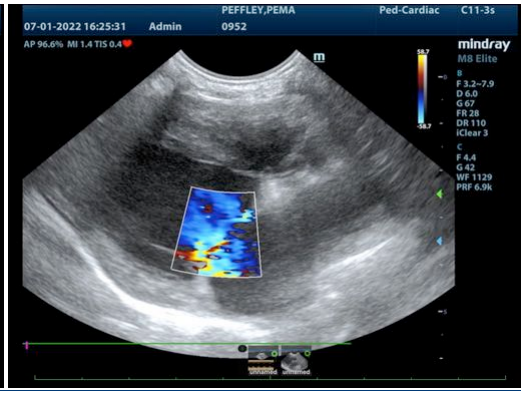
AGE

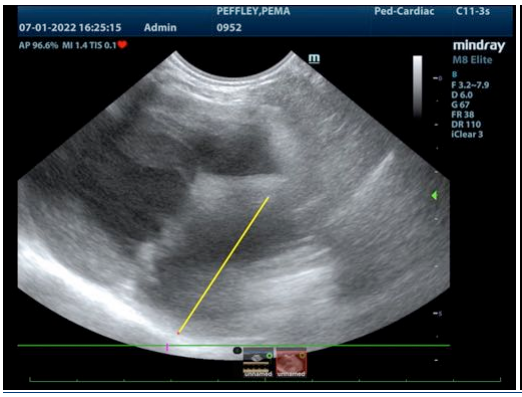
12 years

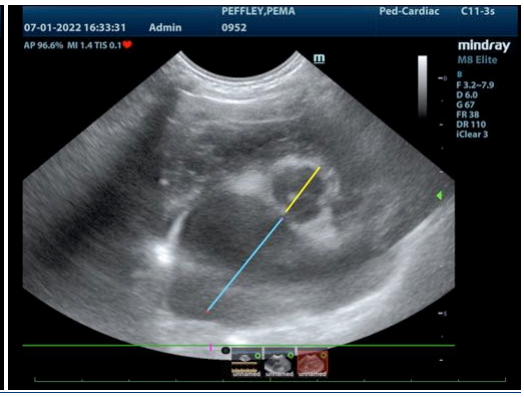
WEIGHT

9 lbs









INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Green

HOSPITAL NAME

Healing Spirit Animal Wellness

REFERRING VET

Dr. Green

INVOICE

31448

DATE

7/2/22

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