



PATIENT

Weezy Sanders Hopkins

SPECIES

Canine

BREED

Terrier Mix

SEX

Spayed female

AGE

14 years

WEIGHT

11 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Todd

HOSPITAL NAME

Lambs Gap AH

REFERRING VET

Dr. Todd

INVOICE

42414

DATE

12/29/22

PRESENTING CLINICAL SIGNS

History: Weezy is a fourteen year old, FS, Terrier mix with a history of grade IV/VI left apical heart murmur. Her last echo was on 5/24/22 and read by Dr. Machen-Lamy. She is currently taking Pimobendan 1.25 mg PO BID. ECG is attached as a pdf and Blood pressure today was 135/63, 131/65, 136/88. Weezy was recently seen at our local ER for diarrhea on 12/25/22. Abdominal radiographs showed cardiomegaly (reverse D), "irregular spleen surface, caudal displacement of pylorus, mild gas in small intestines, with subjective inflammation and soft feces in colon". Weezy's diarrhea has improved, but owner requested abdominal ultrasound to screen abdomen for possible abnormalities. CBC, Chemistry, T4, cPL and cardiac proBNP were submitted to Idexx today.

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 3.5 cm. The left kidney measured 4.0 cm.

Adrenal Glands

The right adrenal gland was uniform and measured 1.52 x 0.5 cm. The left adrenal gland was slightly irregular and measured 1.0 x 0.35 cm at the cranial pole and 0.22 cm at the caudal pole.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. Hyperechoic, lipogranulomatous change was noted, yet not pathological. 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 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. Multi-focal, non-disruptive, hypoechoic nodular changes were noted. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder was mildly over distended with suspended and dependent debris, yet not to the level of emerging mucocele, yet sludge appears to be mildly excessive. No adjunctive inflammation was noted.



PATIENT

Gastrointestinal

Weezy Sanders
Hopkins

There was some residual chyme and gas was noted in the **stomach**, yet not pathological. This is consistent with end post prandial presentation. Transit of chyme into the small intestine was normal. Curvilinear patterns were maintained throughout the GI tract. No evidence of pathology. 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.

SPECIES

Canine

BREED

Terrier Mix

Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

SEX

Spayed female

AGE

14 years

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. Minor **mitral** valve insufficiency was noted. The mitral insufficiency jet was centralized and minor. 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 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. Minor **tricuspid** insufficiency was noted at 2.2 m/sec. The tricuspid insufficiency jet was centralized and minor. 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). 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.

WEIGHT

11 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Todd

HOSPITAL NAME

Lambs Gap AH

REFERRING VET

Dr. Todd

INVOICE

42414

DATE

12/29/22



PATIENT

Weezy Sanders
Hopkins

SPECIES

Canine

BREED

Terrier Mix

SEX

Spayed female

AGE

14 years

WEIGHT

11 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Todd

HOSPITAL NAME

Lambs Gap AH

REFERRING VET

Dr. Todd

INVOICE

42414

DATE

12/29/22

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	<1.6	28-40	40-100	<0.6
PATIENT				1.4	52	85	NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	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	BELOW	BELOW	BELOW	BELOW
PATIENT		1.5	0.6		2.28	2.12	

ULTRASONOGRAPHIC FINDINGS

Geriatric abdomen.

Renal mineralization.

Hepatic nodular hyperplasia, age related hepatic changes.

Benign abdomen.

Mitral and tricuspid insufficiency.

Early stage B1 valvular disease, stable.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

FNA of the liver can be considered for further definition, yet subjectively appears benign.

No cardiac therapy is indicated.

The heart is stable without clinical disease. No overt contraindication for anesthesia of brief to moderate duration. I suggest Torbutrol premed, Propofol induction, Isoflor maintenance or similar protocol if anesthesia is desired. Blood pressure recommended if not already performed and target white coat negative systolic pressure of < 160 mmHg. If higher than this ACE-inhibitor is suggested to reach this level. Recheck echocardiogram is recommended in 6 months, earlier if murmur grade increases or clinical signs initiate.



PATIENT

Weezy Sanders Hopkins

SPECIES

Canine

BREED

Terrier Mix

SEX

Spayed female

AGE

14 years

WEIGHT

11 lbs

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Todd

HOSPITAL NAME

Lambs Gap AH

REFERRING VET

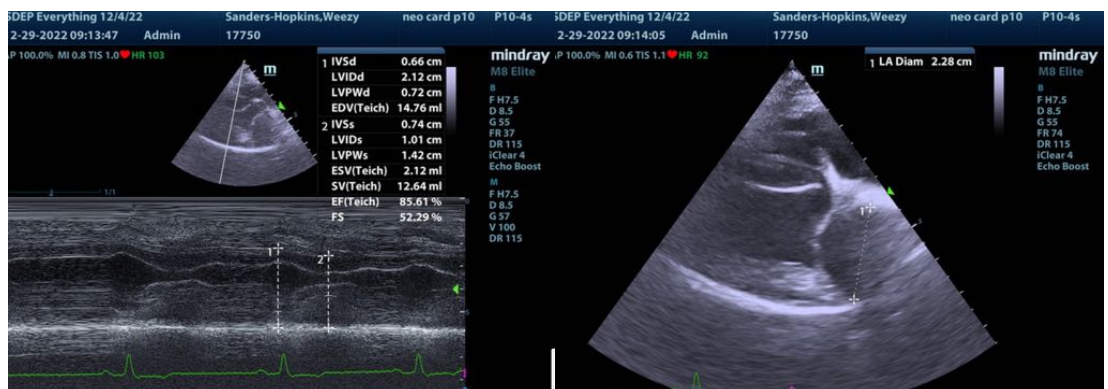
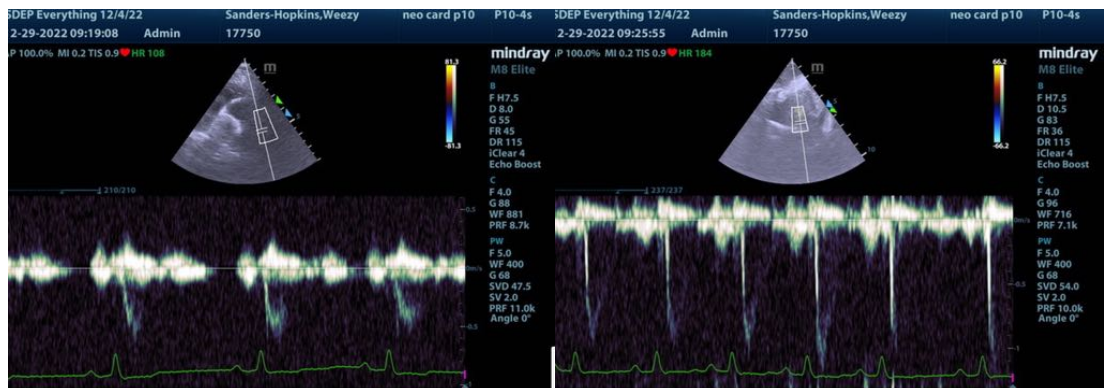
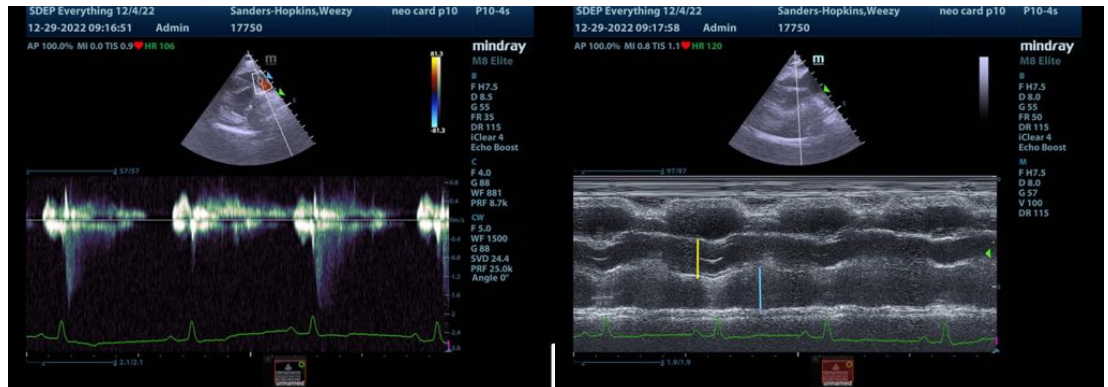
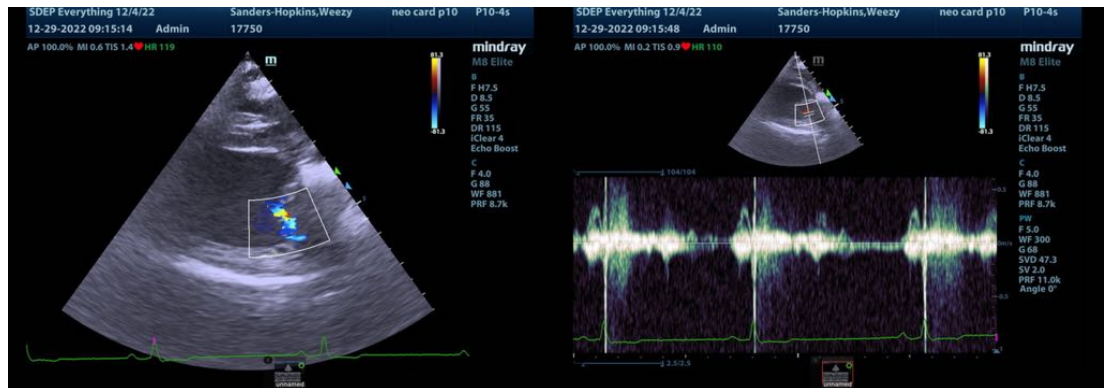
Dr. Todd

INVOICE

42414

DATE

12/29/22





PATIENT

Weezy Sanders Hopkins

SPECIES

Canine

BREED

Terrier Mix

SEX

Spayed female

AGE

14 years

WEIGHT

11 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Todd

HOSPITAL NAME

Lambs Gap AH

REFERRING VET

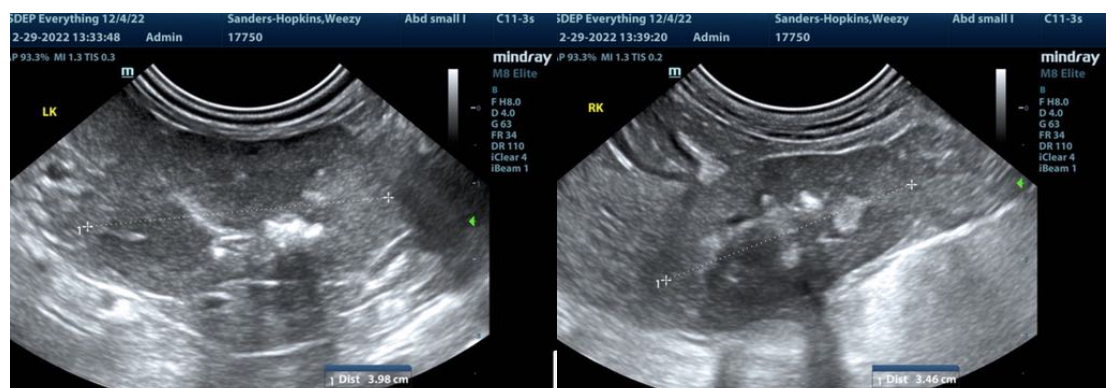
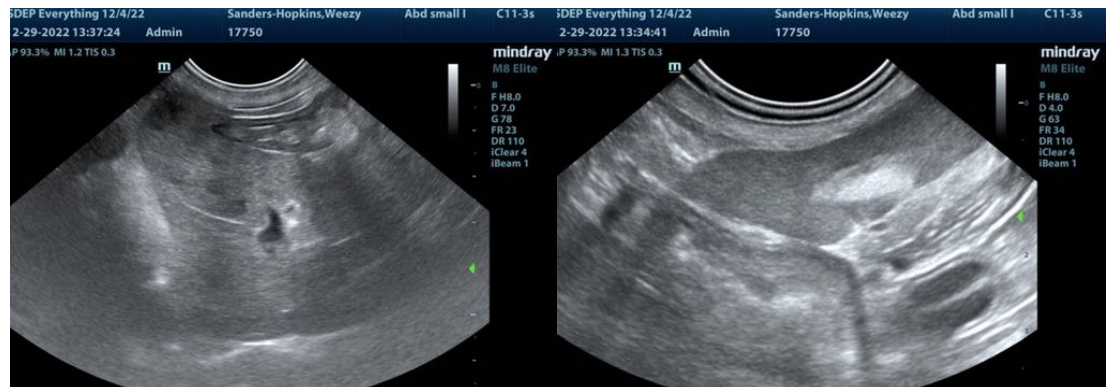
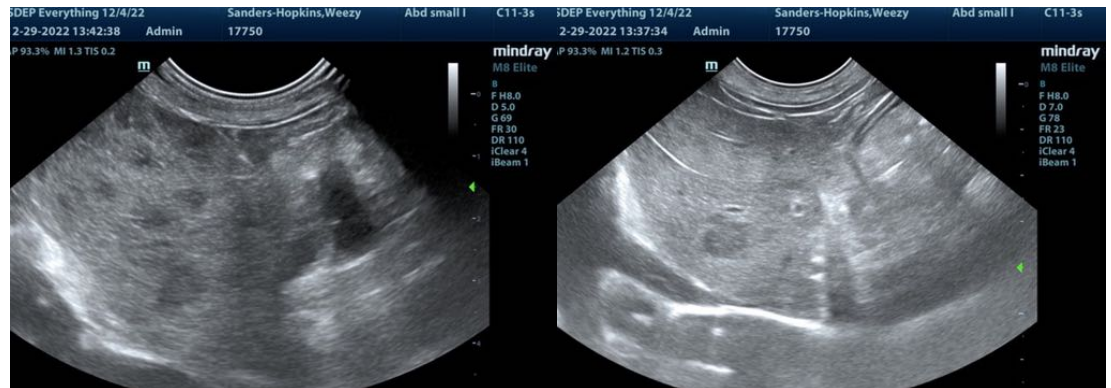
Dr. Todd

INVOICE

42414

DATE

12/29/22





PATIENT

Weezy Sanders
Hopkins

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.

SPECIES

Canine

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.

BREED

Terrier Mix

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

SEX

Spayed female

AGE

14 years

WEIGHT

11 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

**IMAGING
PERFORMED BY**

Dr. Todd

HOSPITAL NAME

Lambs Gap AH

REFERRING VET

Dr. Todd

INVOICE

42414

DATE

12/29/22