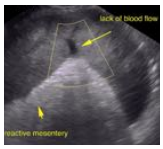
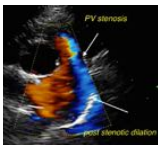
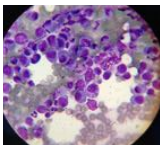
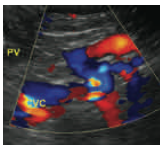
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™





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

PATIENT

Kyle Welsh

SPECIES

Canine

BREED

Mix

SEX

Neutered male

AGE

12 years

WEIGHT

64 lbs

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jessica Miller, RDMS

HOSPITAL NAME

Whippany VH

REFERRING VET

Dr. Smith

INVOICE

92650

DATE

10/26/21

PRESENTING CLINICAL SIGNS

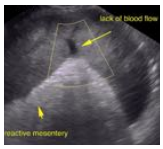
History: Pre surgery u/s for dental. Grade III/VI murmur, asymptomatic. Seen Sunday at VEG for GI upset (rec FNA of liver mass). No current meds.

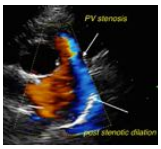
ULTRASONOGRAPHIC EXAMINATION OF THE HEART

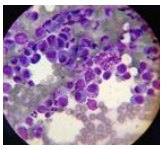
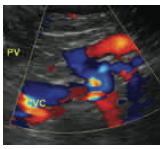
The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. The mitral insufficiency jet was minor and centralized, not clinically significant. 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. **Tricuspid** valvular assessment demonstrated adequate linear morphology. 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. Tachyarrhythmia was noted during the exam.

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	5.0		NM	0.83	33	62	0.25
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	145	1.0	0.85	64 lbs	3.84	3.5	

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™





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

PATIENT
Kyle Welsh

SPECIES
Canine

BREED
Mix

SEX
Neutered male

AGE
12 years

WEIGHT
64 lbs

INTERPRETED BY
Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY
Jessica Miller, RDMS

HOSPITAL NAME
Whippany VH

REFERRING VET
Dr. Smith

INVOICE
92650

DATE
10/26/21

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.

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 right adrenal gland measured 3.09 x 0.74 cm at the caudal pole and 0.68 cm at the cranial pole. The left adrenal gland measured 2.02 x 0.63 cm at the cranial pole and 0.64 cm at the caudal pole.

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.

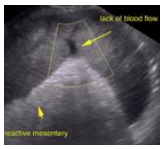
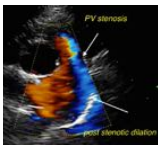
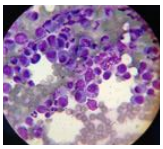
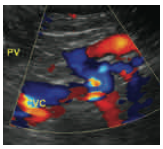
Liver

The **liver** revealed an expanded, irregular mass. The mass measured 8.85 x 5.6 cm. A second mass measured approximately 5.0 cm similar to the prior sonogram with variable nodular changes. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy 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.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Kyle Welsh

SPECIES

Canine

BREED

Mix

SEX

Neutered male

AGE

12 years

WEIGHT

64 lbs

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jessica Miller, RDMS

HOSPITAL NAME

Whippany VH

REFERRING VET

Dr. Smith

INVOICE

92650

DATE

10/26/21

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.

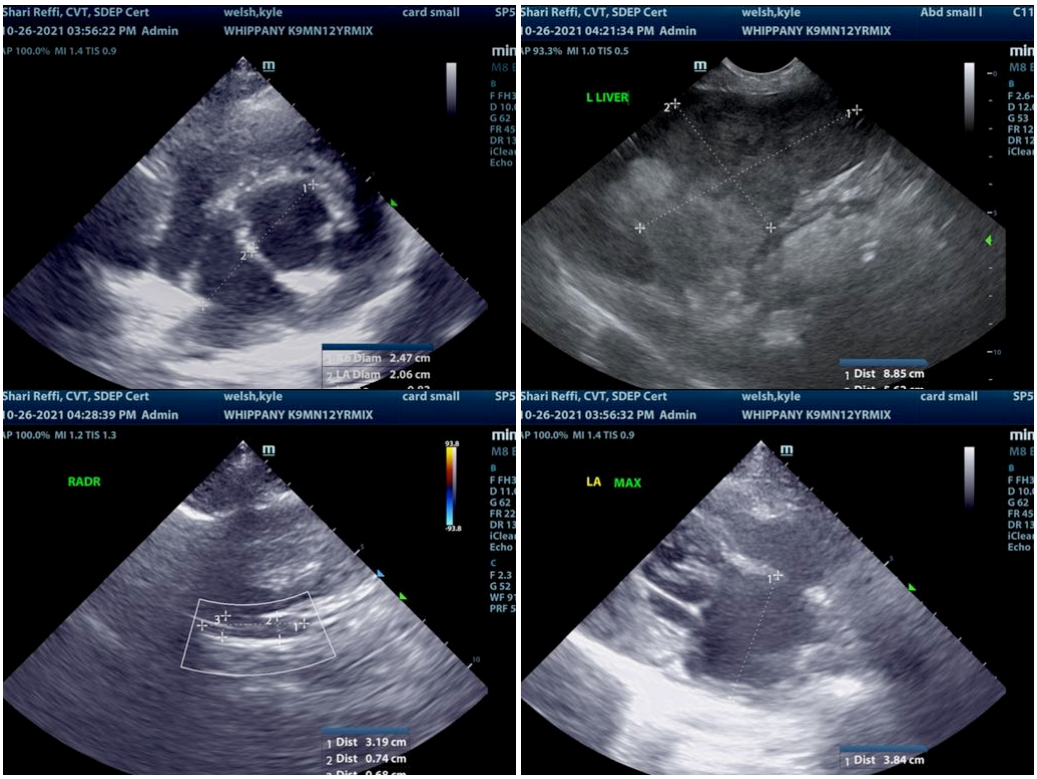
ULTRASONOGRAPHIC FINDINGS

Stage B 1 valvular disease. Structurally and functionally the heart appears compensating. However, tachyarrhythmia was noted.

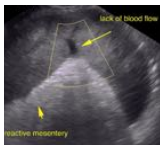
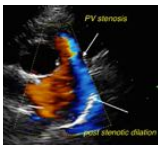
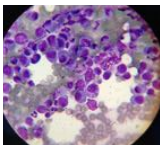
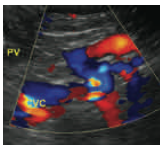
Mild progression of the liver mass and nodule. Adenoma or low-grade hepatocellular carcinoma is possible.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

EKG and blood pressure is indicated. CT evaluation for surgical planning is warranted. Core liver biopsy could be considered with some minor risk of hemorrhage. Left lobectomy may be possible in this patient for complete surgical removal. Otherwise, repeat FNA of variable echotextures of the mass could be considered. Good to guarded prognosis. There was no evidence of volume overload. If anesthesia is necessary, there is no overt contraindication to an anesthetic procedure. Suggested protocol includes Torbutrol premed, Propofol induction, and Isoflurane maintenance. Recheck echocardiogram in 6 months or earlier if murmur grade increases or clinical signs initiate.



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Kyle Welsh

SPECIES

Canine

BREED

Mix

SEX

Neutered male

AGE

12 years

WEIGHT

64 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jessica Miller, RDMS

HOSPITAL NAME

Whippany VH

REFERRING VET

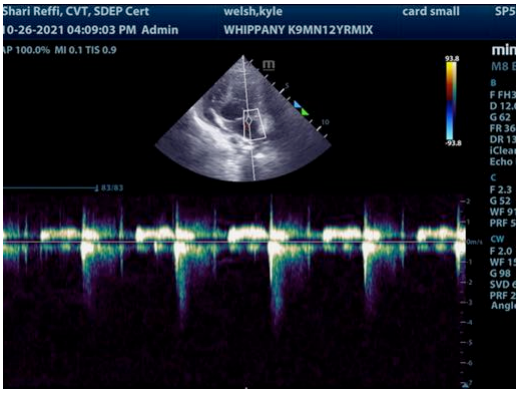
Dr. Smith

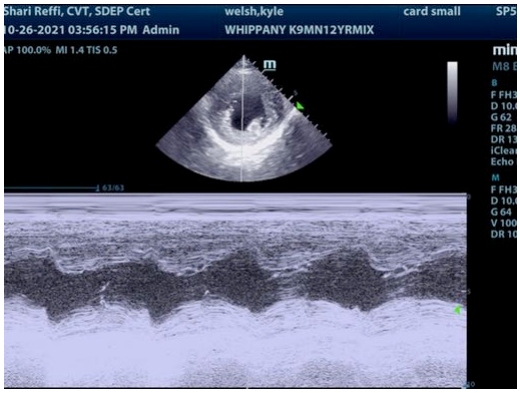
INVOICE

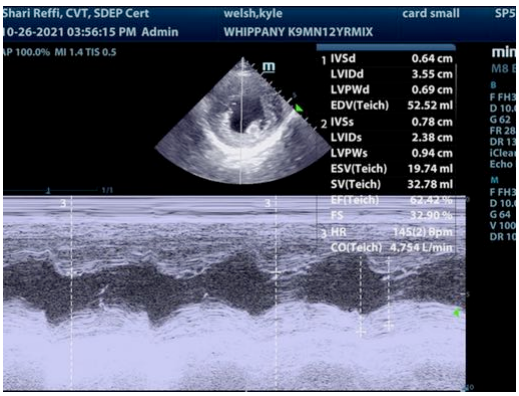
92650

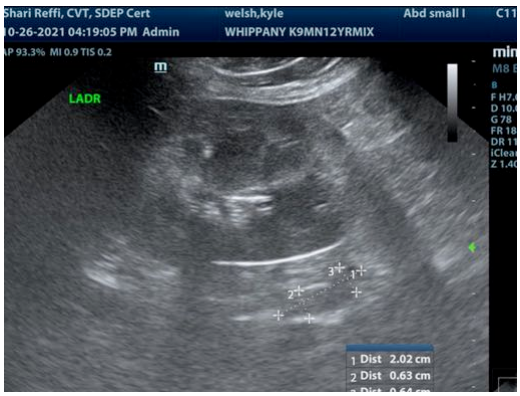
DATE

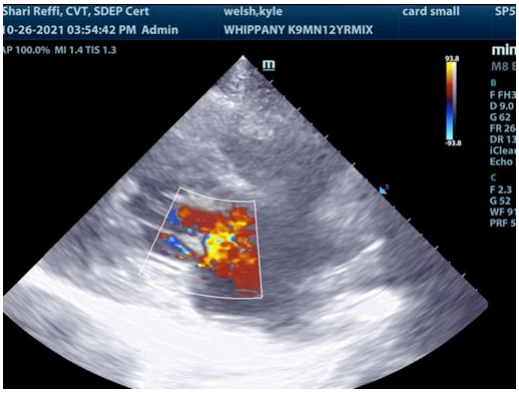
10/26/21

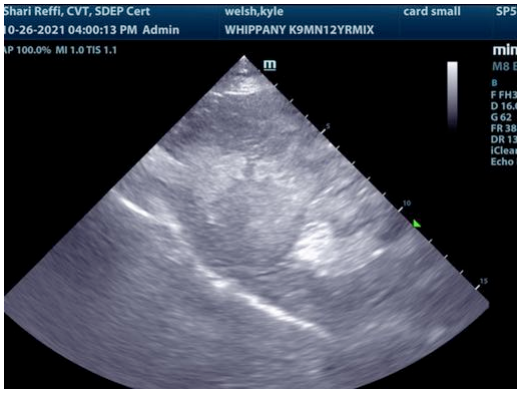


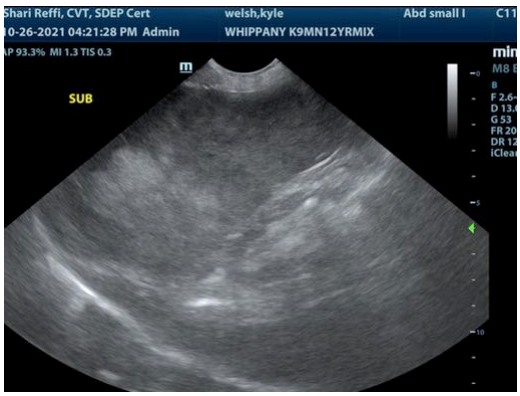






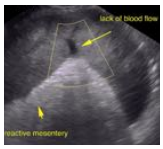


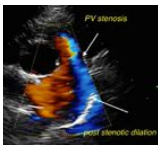


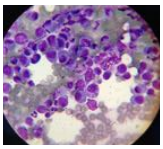
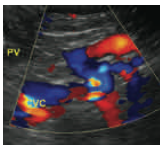


The information and recommendations provided are based on the images presented by the referring

SonoPath
Clinical Sonography & Telecytology





EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Kyle Welsh

SPECIES

Canine

BREED

Mix

SEX

Neutered male

AGE

12 years

WEIGHT

64 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jessica Miller, RDMS

HOSPITAL NAME

Whippany VH

REFERRING VET

Dr. Smith

INVOICE

92650

DATE

10/26/21

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.

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