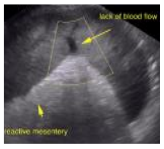
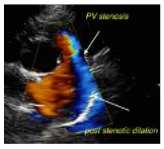
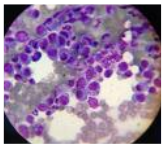
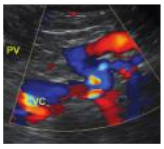
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Shuai He

SPECIES

Canine

BREED

German Shepherd

SEX

Neutered Male

AGE

9 Years

WEIGHT

120 Pounds

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Oakland AH

REFERRING VET

Dr. Chabora

INVOICE

17664

DATE

10/13/22

PRESENTING CLINICAL SIGNS

History: Patient presents due to labored breathing, anorexia, and weight loss. No current meds. Blood work WNL.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

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	--	--	NM	2.5	24.2	49.6	0.35
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				
PATIENT	NM	1.3	0.7	--	7.8	5.5	--

Cardiac Presentation

Mild thickening of the mitral valves was present without evidence of valvular prolapse or chordae tendineae rupture. Moderate to severe eccentric mitral valve regurgitation with severe left atrial dilation with bulbous left atrial appearance was noted. Subjective dilated LV diameter noted with mild decreased myocardial function. Mild increased sphericity of the LV was present. The tricuspid valve appears mildly thickened with concurrent mild to moderate TR. Mild right atrium enlargement was noted. Pulmonic and aortic valves appear to be overtly normal in morphology and mobility. Normal measured pulmonic and aortic out flow velocities were noted. No obvious aortic or pulmonic insufficiency present. Mild volume pericardial and subjective pleural effusion noted. No obvious cardiac tumors noted. Tachycardia with suspect irregular rhythm is present.

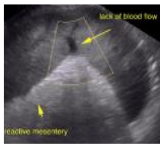
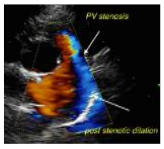
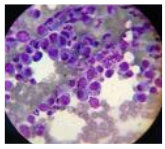
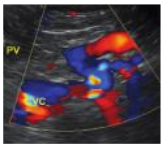
Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

The residual prostate was free of pathology.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 8.9 cm in length. The right kidney measured 8.6 cm in length.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Shuai He

SPECIES

Canine

BREED

German Shepherd

SEX

Neutered Male

AGE

9 Years

WEIGHT

120 Pounds

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Oakland AH

REFERRING VET

Dr. Chabora

INVOICE

17664

DATE

10/13/22

Adrenal Glands

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.48 cm width at the caudal pole and 0.68 cm width at the cranial pole.

The left adrenal gland was not definitively visualized.

Spleen

The spleen revealed generalized enlargement with evidence of areas of splenic folding. Maintained symmetrical capsule contour was noted. Generalized mild nonhomogeneous parenchyma was noted. No masses or nodules were noted. Splenic vascularity was subjectively normal.

Liver

The liver presented enlarged in size with symmetrical yet swollen contour. The parenchyma exhibited conserved uniform parenchyma with normal echogenicity isoechoic to the spleen and falciform fat. The caudal vena cava at the level of the liver and diaphragm exhibited concurrent dilation, measuring 2.3 cm in diameter. No evidence of caudal vena cava thrombosis.

The gallbladder was non-distended in size, containing primarily anechoic content. The gallbladder wall was mildly thickened in appearance consisting of an echogenic double rim corresponding to the inner and outer portions of the wall. This is consistent with gallbladder wall edema. Possible causes may include acute inflammation, edema and anaphylaxis.

Gastrointestinal

The stomach presented wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. Minor retained anechoic fluid was present without evidence of mechanical pyloric outflow obstruction.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

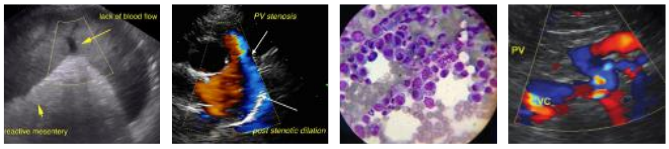
Free Abdomen

Minor volume concurrent peritoneal free fluid was noted, primarily in the cranial abdomen between the liver lobes. No omental masses or evidence of lymphadenopathy.

ULTRASONOGRAPHIC FINDINGS

- Moderate to severe eccentric mitral valve insufficiency with concurrent severe LA enlargement and mild LV enlargement
- Tricuspid valve insufficiency
- Tachycardia

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Shuai He

SPECIES

Canine

BREED

German Shepherd

SEX

Neutered Male

AGE

9 Years

WEIGHT

120 Pounds

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Oakland AH

REFERRING VET

Dr. Chabora

INVOICE

17664

DATE

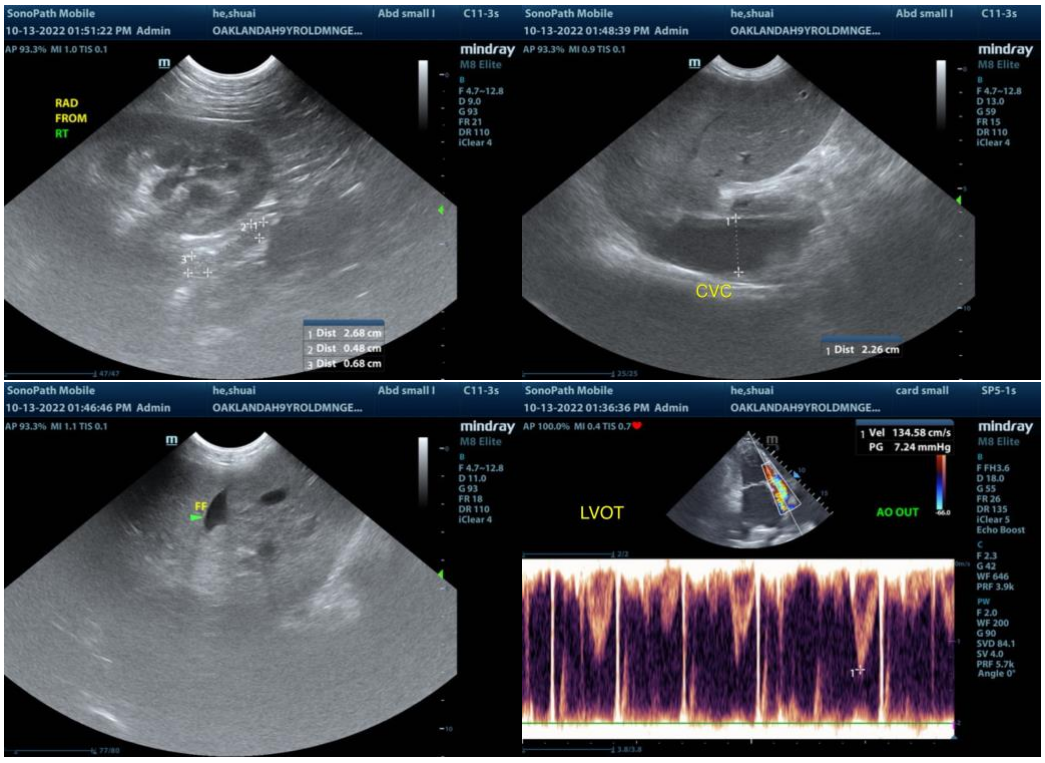
10/13/22

- Mild volume pericardial and subjective pleural effusion
- Congestive hepatopathy pattern with cranial abdominal caudal vena cava dilation
- Mild gallbladder wall edema- consistent with congestion
- Splenomegaly, exhibiting nonhomogeneous parenchyma- breed associated hypersplenism is likely. Possible incidental hyperplasia, hematopoiesis or splenitis is possible. Neoplastic criteria is considered unlikely.
- Concurrent scant peritoneal free fluid

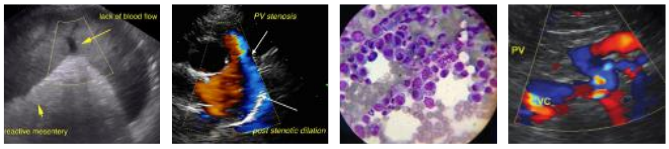
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Sever chronic mitral valve disease appears to have progressed to secondary severe LA enlargement, left heart volume overload and suspect secondary tachyarrhythmia. Given this presentation, congestive heart failure is present. The tachyarrhythmia may potentially indicate atrial fibrillation, although ECG assessment is required for further classification. Regardless, the left sided structural disease predisposes to left sided congestion (pulmonary edema), whereas the arrythmia predisposes to right sided congestion, as indicated by congestive hepatopathy and concurrent scant peritoneal effusion.

Hospitalization with IV diuretic and rate control therapy, pending ECG analysis, is suggested, if possible. Pimobendan at 0.3 mg/kg PO BID, Lasix/spironolactone combination at 1-2 mg/kg PO BID for both and as needed oxygen (if clinically indicated) is suggested. Monitoring of heart rate, systemic BP and renal parameters, going forward, is indicated. If BP is >130, ace-inhibitor medication could be considered (not advised if <130). Referral to a 24-hour facility or ideally, local cardiologist, may be in this patients best interest. Long term prognosis is very guarded.



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Shuai He

SPECIES

Canine

BREED

German Shepherd

SEX

Neutered Male

AGE

9 Years

WEIGHT

120 Pounds

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Oakland AH

REFERRING VET

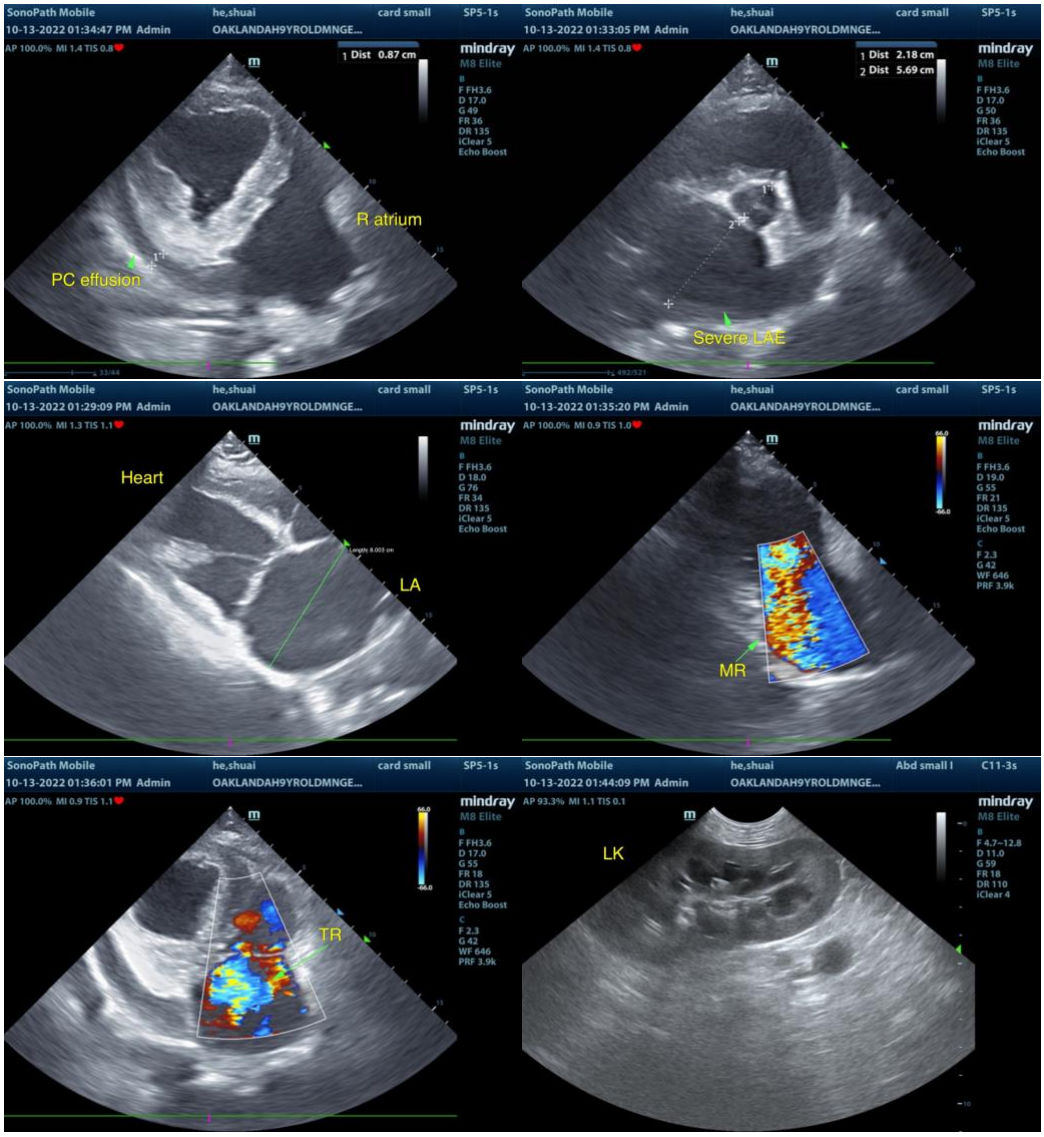
Dr. Chabora

INVOICE

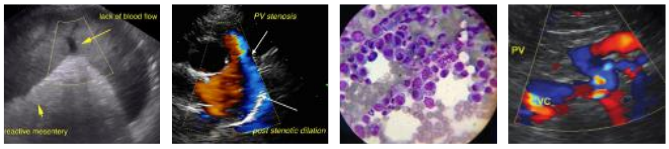
17664

DATE

10/13/22



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Shuai He

SPECIES

Canine

BREED

German Shepherd

SEX

Neutered Male

AGE

9 Years

WEIGHT

120 Pounds

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Oakland AH

REFERRING VET

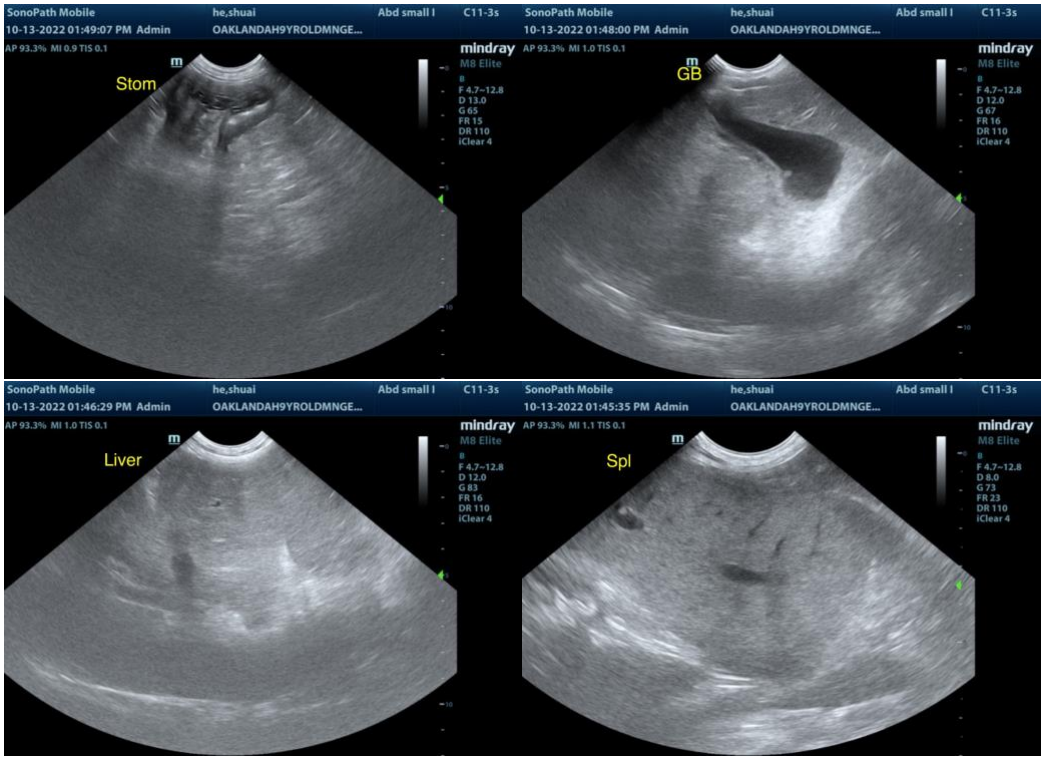
Dr. Chabora

INVOICE

17664

DATE

10/13/22



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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com