



PATIENT

Milo Ziegler

SPECIES

Canine

BREED

German Wirehair
Pointer

SEX

MN

AGE

10yr

WEIGHT

69.1lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Bailes

HOSPITAL NAME

All Creatures Great &
Small Corvallis

REFERRING VET

Brent Sadahiro

INVOICE

24005

DATE

02/26/2026

PRESENTING CLINICAL SIGNS

- Chronic hx of heart murmur since 2023; recently increased in grade. No breathing concerns @ home.
- Multiple very large presumptive lipomas all over body
- Recently owners noticed increased urgency to urinate - not as willing to walk as far outside to urinate
- No hx of vomiting or diarrhea.
- Abnormal PE/Chem/CBC/UA Results: 4/6 systolic murmur, severe abdominal distension w/ no fluid wave on exam. Mild/moderate MCS atrophy dorsum. Basic chem/CBC results unremarkable progressive weight gain noted

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND HEART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO M-mode	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	5.8	2.5	--	1.53	46	79	0.2
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	LAD LA MAX 4 Chamber	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	1.6	0.9	69.1lb	4.8	4.0	--

Cardiac Presentation

The echocardiogram in this patient demonstrated mild increased left atrial size based on LA max measurement. Mild interatrial septal deviation present. The cranial and caudal mitral valve leaflets presented mild thickening consistent with mild endocardiosis. Doppler indicated measurable moderate eccentric 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. Tricuspid valvular assessment demonstrated mild thickening with mild TR on Doppler. 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 cardiac / pericardial tumors was visible.



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Urinary System

The urinary bladder presented uniformly thickened urinary bladder wall isoechoic to the adjacent normal urinary bladder wall. The luminal margin of the thickened urinary bladder wall was mildly asymmetrical in contour. Apical urinary bladder wall thickness measured 0.72 cm. Mineralization or echogenic foci within the thickened areas of urinary bladder wall was not present. The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal tone. Anechoic urine was present in the lumen with mild non-dependent particulate urine sediment. The ureteral papillae were normal. The ureters were not visible which is normal.

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 6.2 cm in length. The right kidney measured 7.4 cm in length.

The area of the aortic trifurcation was free of pathology.

The residual prostate was not definitively visualized.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.62 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.57 cm width at the caudal pole.

Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

Liver/Gallbladder

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. Normal vascular volume. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained mild to moderate variably echogenic non-shadowing ingesta sonographically suggestive of food echogenicity with no signs of obstruction or foreign material. The gastric body wall measured 0.39 cm in width.

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 mechanical/metabolic ileus, obstruction or foreign material.

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



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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

Large intra-abdominal lipoma measuring at least 10 cm diameter but possibly larger as the entire lipoma would not fit into a single viewing window was present.

An unspecified non-homogenous cranial abdomen mass measuring ~ 6 cm in diameter was visualized caudal to and possibly effacing the liver and medial spleen as well as the upper gastrointestinal tract.

No evidence of peritoneal effusion.

ULTRASONOGRAPHIC FINDINGS

Primary

- Chronic mitral valve disease (ACVIM B2)
- TV insufficiency -estimated pulmonary pressure gradient suggestive of mild increased pulmonary pressure without clinical pulmonary hypertension
- Non-homogenous unspecified cranial abdomen mass
- Large intra-abdominal lipoma
- Non-shadowing gastric ingesta, sonographically normal empty small intestine
- Mild hepatic parenchyma remodeling
- Sonographically normal spleen
- Mild cystitis pattern with mild urine sediment

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is chronic degenerative valvular changes with secondary eccentric mitral valve insufficiency. The left atrial enlargement implies that the risk of complication secondary to mitral valve insufficiency is elevated, yet overall the heart appears stable. No other clinical issues such as LV systolic dysfunction or clinical pulmonary hypertension. Pimobendan 0.3 mg/kg BID is recommended. No overt indication for additional medication. Prognosis is considered variable and sonographic monitoring is recommended. Recheck echo cardiogram is suggested in 6 months, sooner if clinical signs arise. Cardiac anesthetic risk is considered mild.

The unspecified mass may indicate neoplastic or benign criteria i.e. granuloma potentially associated with the caudal liver, upper gastrointestinal tract, pancreas, or potentially cranial aspect of the large intra-abdominal lipoma. The mass did not appear to derive from the spleen. If accessible and assuming normal clotting status, mass FNA cytology could be considered for further clarification. Correlation with most recent meal ingestion recommended. If documented NPO, some degree of delayed gastric emptying is possible. Correlation with UA and C/S if evidence of inflammatory sediment +/- screening BRAF assay recommended given lower urinary tract signs. Abdominal CT could be considered for further clarification of the cranial abdomen mass.

Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.



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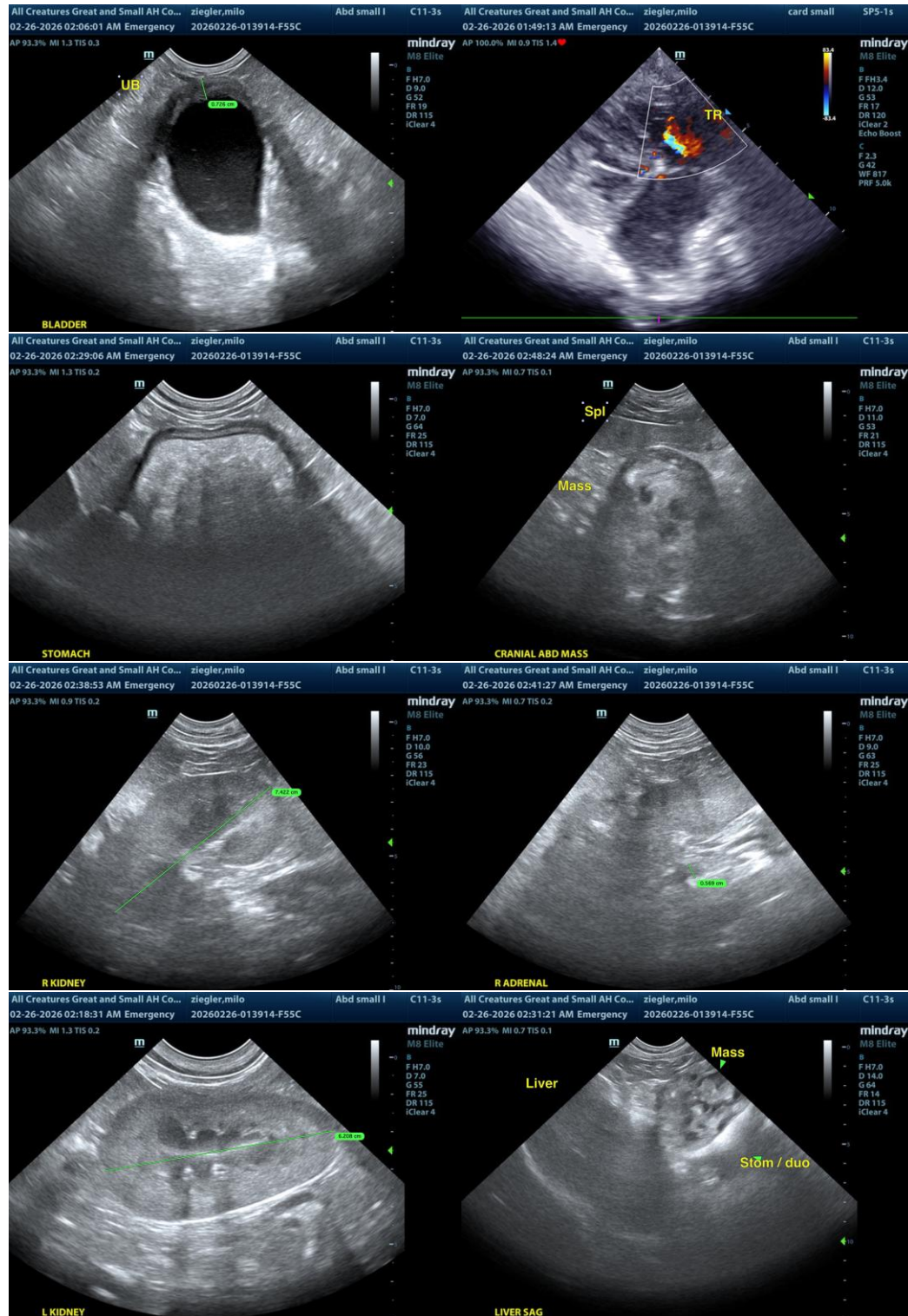
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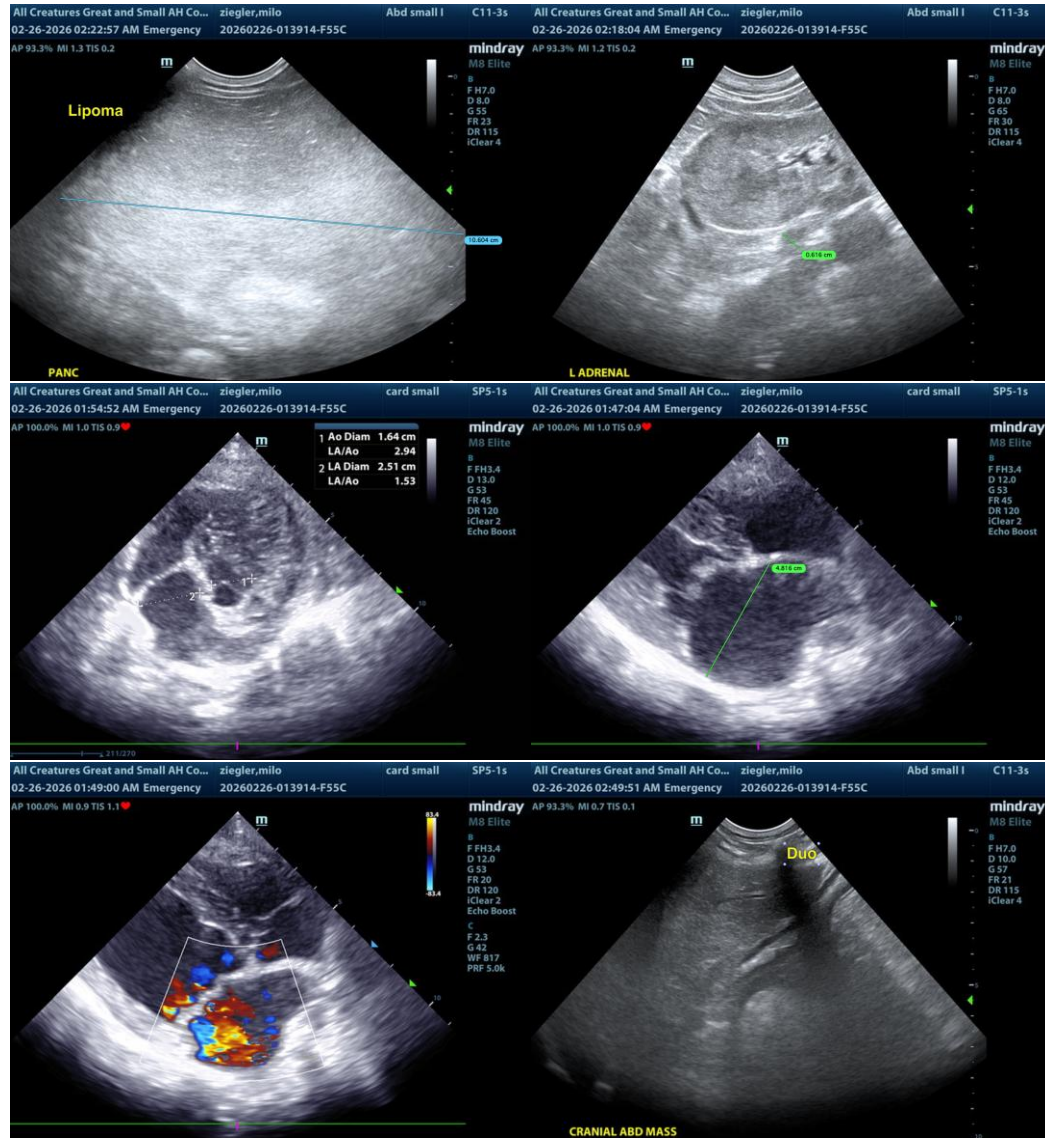
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)
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