



## PATIENT

Mollie Jones

## SPECIES

Canine

## BREED

Lab Mix

## SEX

FS

## AGE

6 years

## WEIGHT

49.4 lbs.

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Kelly Vazquez

## HOSPITAL NAME

Ho-Ho-Kus VH

## REFERRING VET

Dr. Dan Eisenberg

## INVOICE

12776

## DATE

12/9/21

## PRESENTING CLINICAL SIGNS

Grade 2-3/6 heart murmur. Weight loss, mild increase on spec CPL. Moderate azotemia. Abnormal PE/Chem/CBC/UA Results: Globulins (5.0), creat. (3.6).

## 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	<1.6	28-40	40-100	<0.6
PATIENT			NM	1.4	35.1	67.9	0.36
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	127	1.7	1.1		3.7	3.7	

### Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented subtle subjective vegetative thickening which may indicate minor endocardiosis. Doppler indicated eccentric insufficiency. The **left ventricle** presented normal thicknesses with linear contour and was not dilated nor restricted. Potential for subtle increased left ventricle volume is possible. 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.

### Urinary System

The urinary bladder was mildly subnormal in size owing to lack of urine distention. Mild anechoic urine was present with no sediment or calculi. No evidence of neoplastic or Inflammatory mural criteria was noted. The urethra was normal in structure and tone to a depth of 2.0 cm.



**PATIENT**

The area of the aortic trifurcation was free of pathology.

Mollie Jones

**SPECIES**

Canine

**BREED**

Lab Mix

**SEX**

FS

**AGE**

6 years

**WEIGHT**

49.4 lbs.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. Subjective mild loss of corticomedullary border distinction was present in both kidneys. No evidence of pyelectasia was noted, loss of corticomedullary architecture or evidence of left or right retroperitoneal Inflammation was noted in either kidney. The left kidney measured 6.5 cm in length. The right kidney measured 6.2 cm in length.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 1.9 cm length x 0.5 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 2.5 cm length x 0.84 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 uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with mild, echogenic, nonorganized gallbladder debris. 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 echogenic, nonshadowing ingesta most consistent with post prandial presentation without signs of ileus, obstruction or foreign material. The visualized ventral gastric body walls were sonographically unremarkable. The ventral gastric body wall width measured 0.45 cm.

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. The jejunum wall width measured 0.33 cm.

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 were evident.

**Free Abdomen**

No omental masses, lymphadenopathy or peritoneal effusion were present.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Kelly Vazquez

**HOSPITAL NAME**

Ho-Ho-Kus VH

**REFERRING VET**

Dr. Dan Eisenberg

**INVOICE**

12776

**DATE**

12/9/21



**PATIENT**

Mollie Jones

**SPECIES**

Canine

**BREED**

Lab Mix

**SEX**

FS

**AGE**

6 years

**WEIGHT**

49.4 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Kelly Vazquez

**HOSPITAL NAME**

Ho-Ho-Kus VH

**REFERRING VET**

Dr. Dan Eisenberg

**INVOICE**

12776

**DATE**

12/9/21

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

- Mild eccentric mitral valve insufficiency
- Normal left atrium
- Normal bilateral renal size with subjective mild loss of corticomedullary border distinction
- Sonographically unremarkable gastrointestinal tract with mild gastric ingesta - suspect recent meal ingestion
- Sonographically unremarkable pancreas

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The cause of the murmur is consistent with mild eccentric mitral valve insufficiency. No other clinical issues such as systolic dysfunction, clinical pulmonary hypertension, or DCM-like criteria were present. The lack of left atrium enlargement indicates that the risk of current and future complication is low. Clinical signs secondary to heart disease are not anticipated while cardiac medications are not indicated at this time.

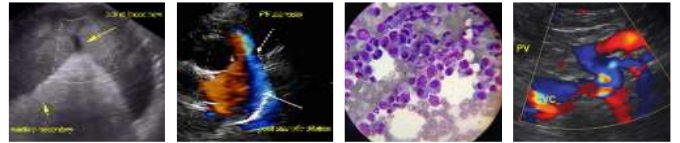
Recheck echocardiogram suggested in 6 months, sooner if clinical signs suggestive of heart disease develop or if murmur intensity progresses.

The appearance of the bilateral kidneys was nonspecific yet suggestive of mild chronic changes with potential mild chronic nephropathy. Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.

Without evidence of significant cardiomyopathy or abdominal visceral pathology, an obvious cause of the patient's weight loss was not definitively evident. Potential for low-grade to chronic pancreatitis or structurally insignificant gastrointestinal disease cannot be definitively excluded. A GI panel to include PLI/TLI/Cobalamin/Folate as well as three view chest radiographs and neurological / musculoskeletal examination are recommended to assess for or rule out occult disease which may cause weight loss.

Although considered unlikely in light of subjectively normal adrenal glands, resting cortisol to assess for or rule out occult Addison's Disease may be considered.





**PATIENT**

Mollie Jones

**SPECIES**

Canine

**BREED**

Lab Mix

**SEX**

FS

**AGE**

6 years

**WEIGHT**

49.4 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Kelly Vazquez

**HOSPITAL NAME**

Ho-Ho-Kus VH

**REFERRING VET**

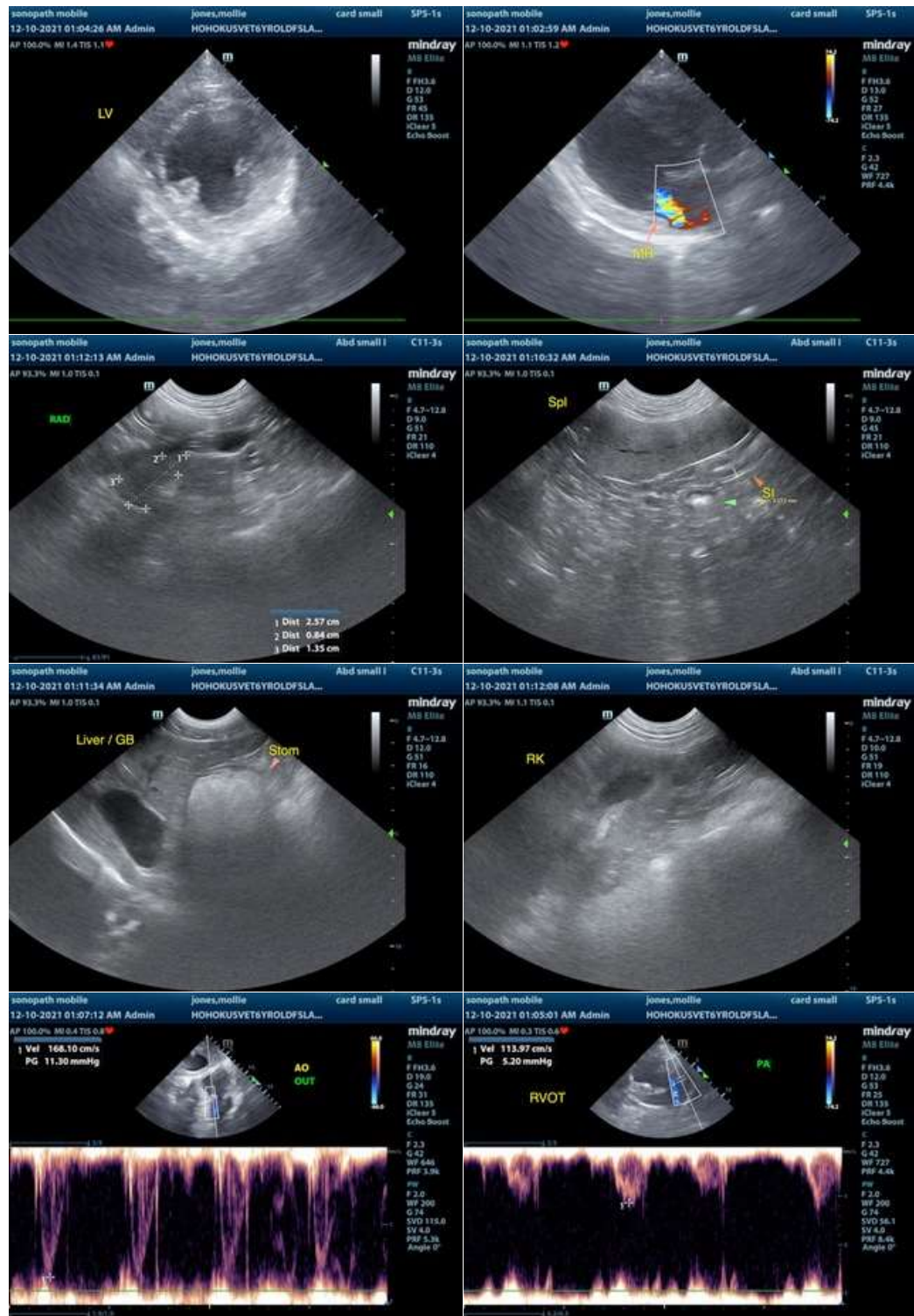
Dr. Dan Eisenberg

**INVOICE**

12776

**DATE**

12/9/21





**PATIENT**

Mollie Jones

**SPECIES**

Canine

**BREED**

Lab Mix

**SEX**

FS

**AGE**

6 years

**WEIGHT**

49.4 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Kelly Vazquez

**HOSPITAL NAME**

Ho-Ho-Kus VH

**REFERRING VET**

Dr. Dan Eisenberg

**INVOICE**

12776

**DATE**

12/9/21



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