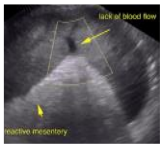
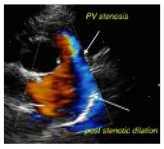
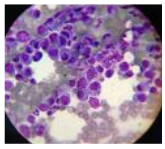
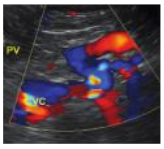
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™





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

PATIENT

Iris Harrison

SPECIES

Canine

BREED

Hound Mix

SEX

FS

AGE

7Y

WEIGHT

42 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Val Shumskaya

HOSPITAL NAME

Riverdale Integrative VC

REFERRING VET

Dr. Hirsch

INVOICE

17173

DATE

6/28/23

PRESENTING CLINICAL SIGNS

recent UTI's, investigate kidneys/bladder/urinary system. New HM

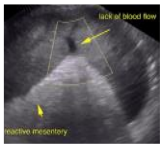
Abnormal PE/Chem/CBC/UA Results: CK mild high, UA: Protein 1+, bilirubin 1+, Bacteria Rods (9-40/HPF), Crystal struvites (6-20/HPF), Total T4 low normal, anaplasma +

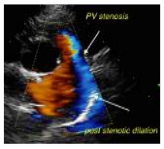
ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

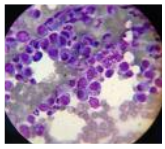
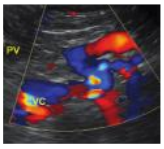
CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
PATIENT				1.34	45	80	0.37
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (kg)	**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	118	1.6	0.94		3.1	3.4	

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. Mild centralized MR was present on Doppler. 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. Normal measured LVOT velocity was present. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. No evidence of significant TR was noted on Doppler. 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). Normal measured RVOT velocity was present. 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.





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

PATIENT

Iris Harrison

SPECIES

Canine

BREED

Hound Mix

SEX

FS

AGE

7Y

WEIGHT

42 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Val Shumskaya

HOSPITAL NAME

Riverdale Integrative VC

REFERRING VET

Dr. Hirsch

INVOICE

17173

DATE

6/28/23

Urinary System

The urinary bladder was normal in size and tone with mildly thickened dorsoapical to ventroapical urinary bladder wall exhibiting primarily homogeneous mural echogenicity. The luminal margin of the thickened urinary bladder wall was mildly asymmetrical in contour. A spherical, nonhomogeneous lesion, which appeared to derive from the apical urinary bladder extending mildly into the urinary bladder lumen, was present measuring 1.6 cm in diameter. Centralized distal acoustic shadowing associated with the lesion was present. The lesion appeared to exhibit isoechoic echogenicity compared to adjacent apical urinary bladder wall. Dorsal urinary bladder wall measured 0.74 cm width. Anechoic urine was present in the lumen with mild nondependent particulate sediment, yet no evidence of calculi. The ureteral papillae were normal. The ureters were not visible which is normal. The trigone and cystourethral junction and proximal urethra to a depth of 4.0 cm were sonographically unremarkable.

No evidence of medial Iliac or sublumbar lymphadenopathy/masses.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 5.5 cm in length. The right kidney measured 6.0 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 0.69 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 2.3 cm length x 0.70 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 thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

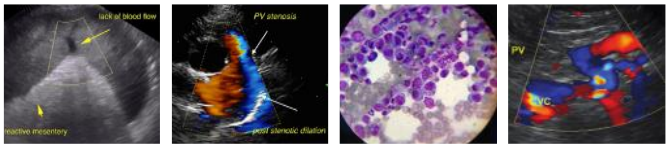
Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material.

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.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Iris Harrison

SPECIES

Canine

BREED

Hound Mix

SEX

FS

AGE

7Y

WEIGHT

42 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Val Shumskaya

HOSPITAL NAME

Riverdale Integrative VC

REFERRING VET

Dr. Hirsch

INVOICE

17173

DATE

6/28/23

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 overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

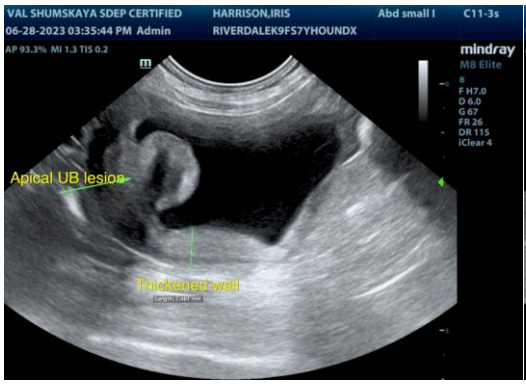
- Normal cardiac structure and function
- Mild MR
- Mildly thickened dorsoapical to ventroapical urinary bladder wall with nonspecific apical lesion, mild particulate urinary bladder sediment
- Normal bilateral kidneys

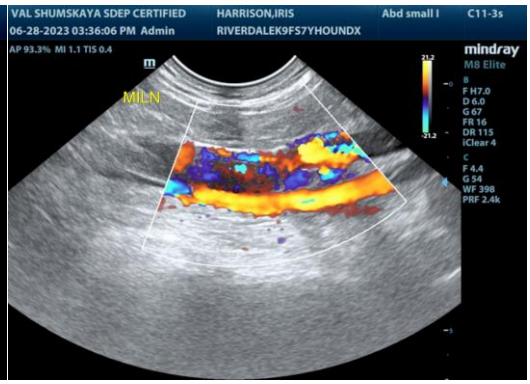
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of structural or functional cardiomyopathy was noted. The only source of the murmur was mild MR, which does not appear to be hemodynamically significant, given no evidence of LA enlargement. No indication for cardiac medications. Continued conservative monitoring of the murmur at this stage is recommended. Recheck echocardiogram is suggested in 12 months, sooner if murmur intensity increases or if clinically indicated. No anesthetic contraindications.

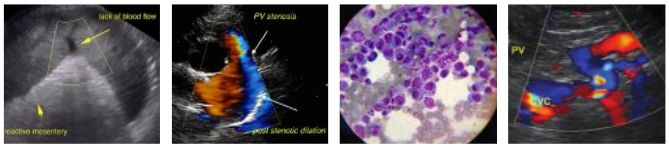
The urinary bladder presentation may potentially indicate cystitis with focal apical atypical polyp, possible entrapped calculus, or congealed sediment / mineral adhered to the apical luminal surface. Potential for mass lesion cannot be definitively excluded. Screening BRAF Assay is suggested. The apical urinary bladder lesion sonographically appears to be amendable to surgical resection. Laparotomy with gross inspection of the urinary bladder, resection of the apical lesion, and mural biopsies for histopathology, as well as tissue C/S, are warranted.

Higher dose/ shorter frequency antibiotic protocol, ideally based on urine C/S results with sonographic monitoring of the urinary bladder going forward would be a more conservative approach.





SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Iris Harrison

SPECIES

Canine

BREED

Hound Mix

SEX

FS

AGE

7Y

WEIGHT

42 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Val Shumskaya

HOSPITAL NAME

Riverdale Integrative VC

REFERRING VET

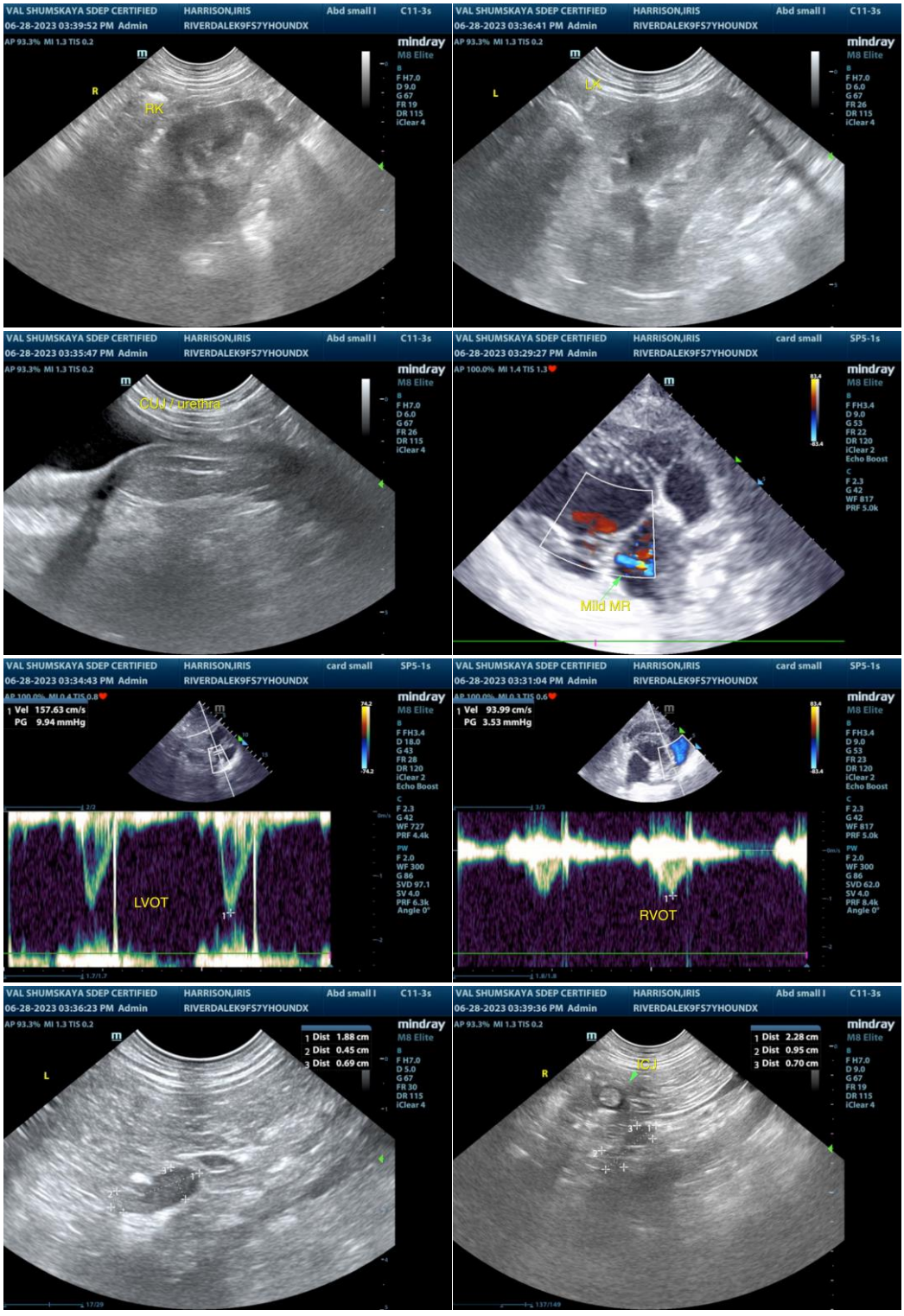
Dr. Hirsch

INVOICE

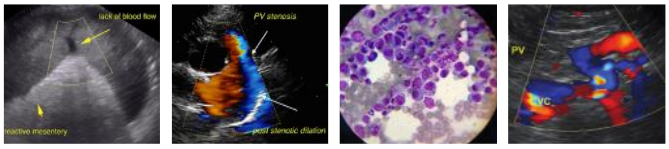
17173

DATE

6/28/23



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Iris Harrison

SPECIES

Canine

BREED

Hound Mix

SEX

FS

AGE

7Y

WEIGHT

42 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Val Shumskaya

HOSPITAL NAME

Riverdale Integrative VC

REFERRING VET

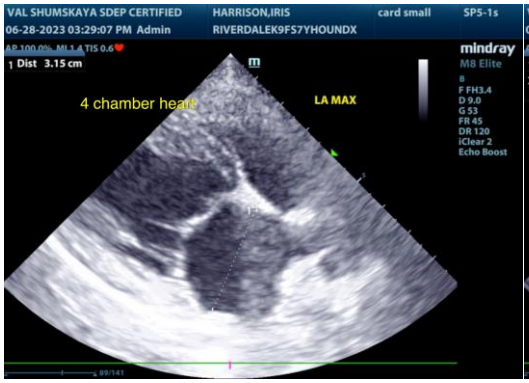
Dr. Hirsch

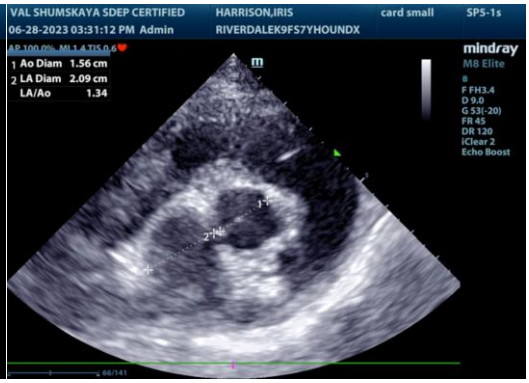
INVOICE

17173

DATE

6/28/23





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)
info@sonopath.com