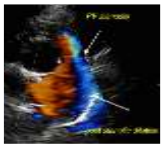
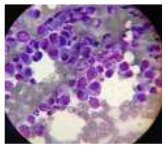
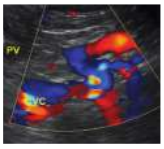
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Teddy Castaldi

SPECIES
Canine

BREED
Shih Tzu

SEX
MN

AGE
14 years

WEIGHT
17.6 lbs.

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

IMAGING PERFORMED BY
Diane McFadden

HOSPITAL NAME
Animal Care Centers of Flanders

REFERRING VET
Dr. Hallihan

INVOICE
12999

DATE
1/7/22

PRESENTING CLINICAL SIGNS

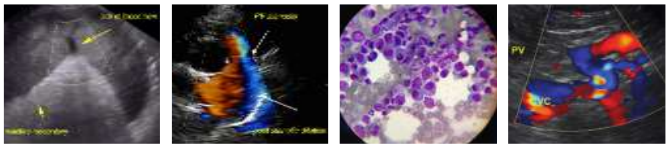
crying in pain for the last 24 hours; on rads uroliths noted in kidneys, bladder and possible ureters. concerned for ureteral obstruction/hydonephrosis; also history of stage B1 valvular disease. Hx of calcium oxalate crystals. Just started meloxicam, convenia
Abnormal PE/Chem/CBC/UA Results: ALKP >2000; UA pending

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	5.7	<2.0	1.3	1.4	42	76	0.17
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	116	1.3	0.8		2.7	2.4	

Cardiac Presentation

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 eccentric mitral valve 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 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.



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

PATIENT

Teddy Castaldi

SPECIES

Canine

BREED

Shih Tzu

SEX

MN

AGE

14 years

WEIGHT

17.6 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Animal Care Centers of Flanders

REFERRING VET

Dr. Hallihan

INVOICE

12999

DATE

1/7/22

Urinary System

The urinary bladder presented uniformly mild 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 0.55 cm width. Mineralization or echogenic foci within the thickened areas of urinary bladder wall were not present. The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal tone. Anechoic urine was present in the lumen. Mild dependent to focally adhered sediment along the ventroapical luminal surface was present. The ureters were not visible which is normal. No overt pathology or calculi were noted in the area of the left or right ureteral papillae.

No overt pathology associated with the residual prostate was noted.

The area of the aortic trifurcation 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 moderate loss of corticomedullary symmetry and definition expected for the age of the patient. Focal areas of nonobstructive medullary renolithiasis along with multiple cortical cysts were present in both kidneys. No evidence of pyelectasia or hydronephrosis was present in either kidney. Definitive ureteral calculi were not visualized. The left kidney measured 4.3 cm in length. The right kidney measured 4.9 cm in length.

Adrenal Glands

The bilateral adrenal glands were enlarged in size with nonhomogeneous to Indistinctly nodular parenchyma. Highly suspect early phrenicoabdominal vein invasion with potential progression towards the caudal vena cava associated with the left adrenal gland was present. The left adrenal gland measured 2.5 cm length x 0.88 cm width at the cranial pole and 1.2 cm width at the caudal pole. The right adrenal gland measured 2.5 cm length x 1.28 cm width at the cranial pole and 1.1 cm width at the caudal pole. Potential for vascular invasion associated with the right adrenal gland was not overtly obvious, yet cannot be definitively excluded. No evidence of parenchymal mineralization was noted.

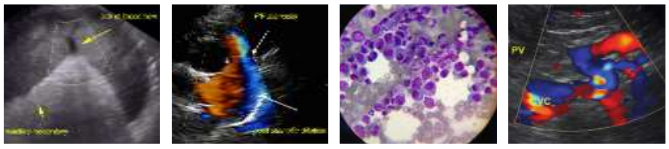
Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. 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. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.

Liver/ Gallbladder

The liver exhibited generalized enlargement with normal 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. Indistinct subtle hypoechoic intraparenchymal nodules were present. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with mild gallbladder debris. The cystic and common bile ducts were normal.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Teddy Castaldi

SPECIES

Canine

BREED

Shih Tzu

SEX

MN

AGE

14 years

WEIGHT

17.6 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Animal Care Centers of Flanders

REFERRING VET

Dr. Hallihan

INVOICE

12999

DATE

1/7/22

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. Minor retained chyme was noted.

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 pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

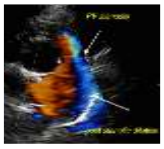
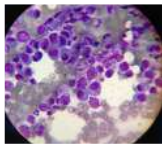
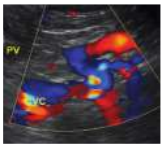
- Chronic mitral valve disease (ACVIM B1) - static compared to previous ultrasound
- Mild nondependent to focally adhered urinary bladder mineral with apical cystitis pattern
- Bilateral moderate to marked degenerative renal changes with nonobstructive medullary renolithiasis and cortical cysts
- Bilateral adrenomegaly with strong suspicion for early left adrenal vascular invasion
- Chronic hepatopathy exhibiting parenchymal remodeling and Intermittent discreet hypoechoic nodules - subjectively benign
- Heterogeneous pancreas - age-related or patient variant, minor remodeling owing to previous inflammation or low grade to chronic pancreatitis possible

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The lack of left atrium enlargement continues to indicate that the risk of complication owing to mitral valve insufficiency is low. No indication for cardiac medications was evident. Recheck echocardiogram is suggested In 6 months, sooner if clinical signs initiate.

Pending urinalysis, urine C/S on a sterile urine sample is warranted. Overt evidence of obstructive ureterolithiasis was not evident yet in correlation with the radiographs, non-visualized, nonobstructive ureteral calculi are suspected. Empirical therapy may include IV fluids, Prazosin or low-dose steroid administration to reduce potential inflammation, as well as analgesia with radiographic monitoring. Further assessment of the bilateral adrenal glands, as well as for ureteral calculi may include abdominal CT.
Sonographic monitoring of the left adrenal gland, as well as the bilateral kidneys, would be a more conservative approach.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Teddy Castaldi

SPECIES

Canine

BREED

Shih Tzu

SEX

MN

AGE

14 years

WEIGHT

17.6 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Animal Care Centers of Flanders

REFERRING VET

Dr. Hallihan

INVOICE

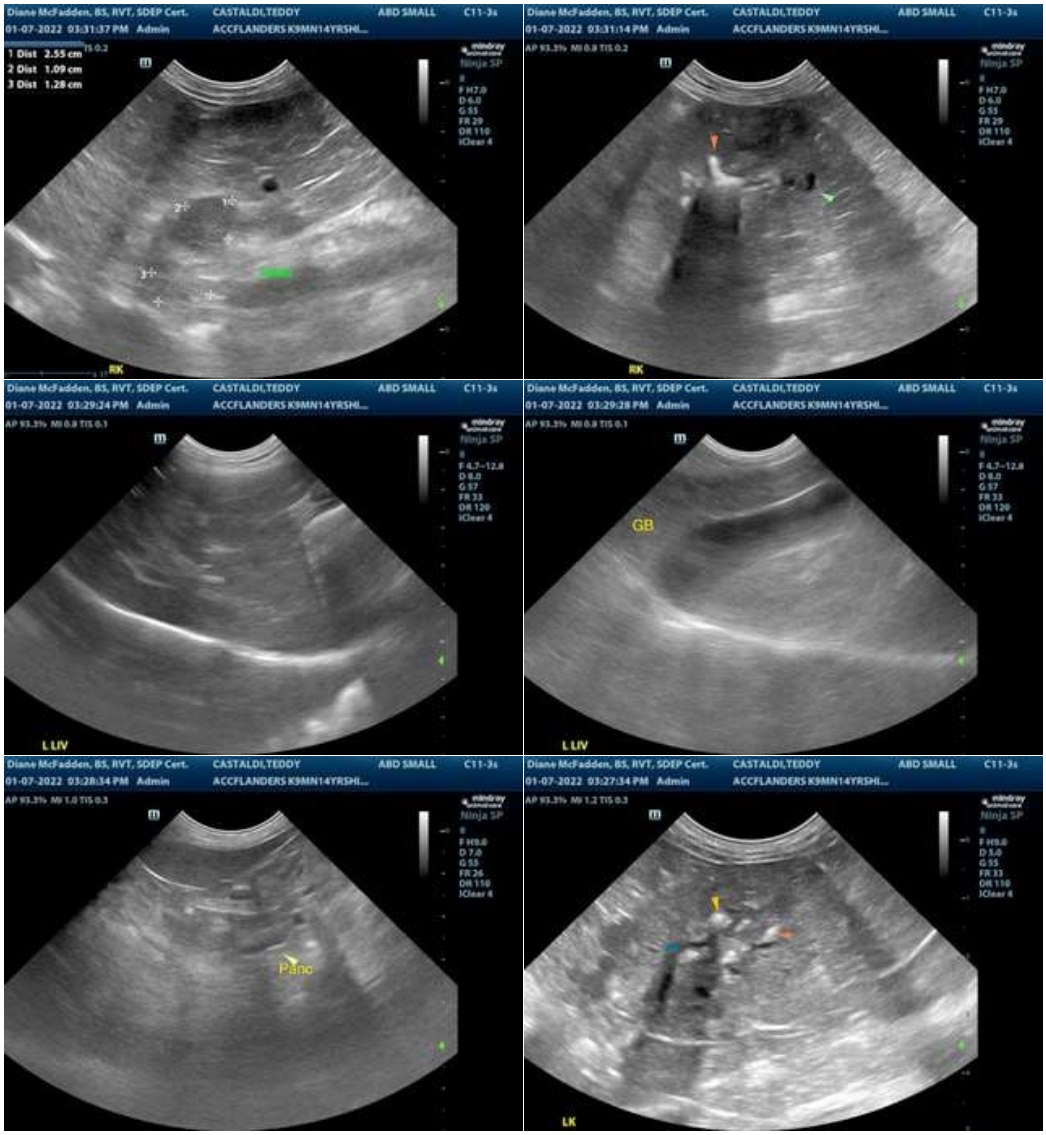
12999

DATE

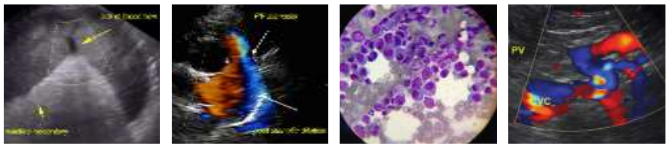
1/7/22

SonoPath CT Services are offered at the Blairstown Animal Hospital. Blairstown, New Jersey. More information can be found at

https://sonopath.com/resources/sonopaths-teleconsultation-services-and-sdep-certification/sonopath-ct-services



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Teddy Castaldi

SPECIES

Canine

BREED

Shih Tzu

SEX

MN

AGE

14 years

WEIGHT

17.6 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Animal Care Centers of Flanders

REFERRING VET

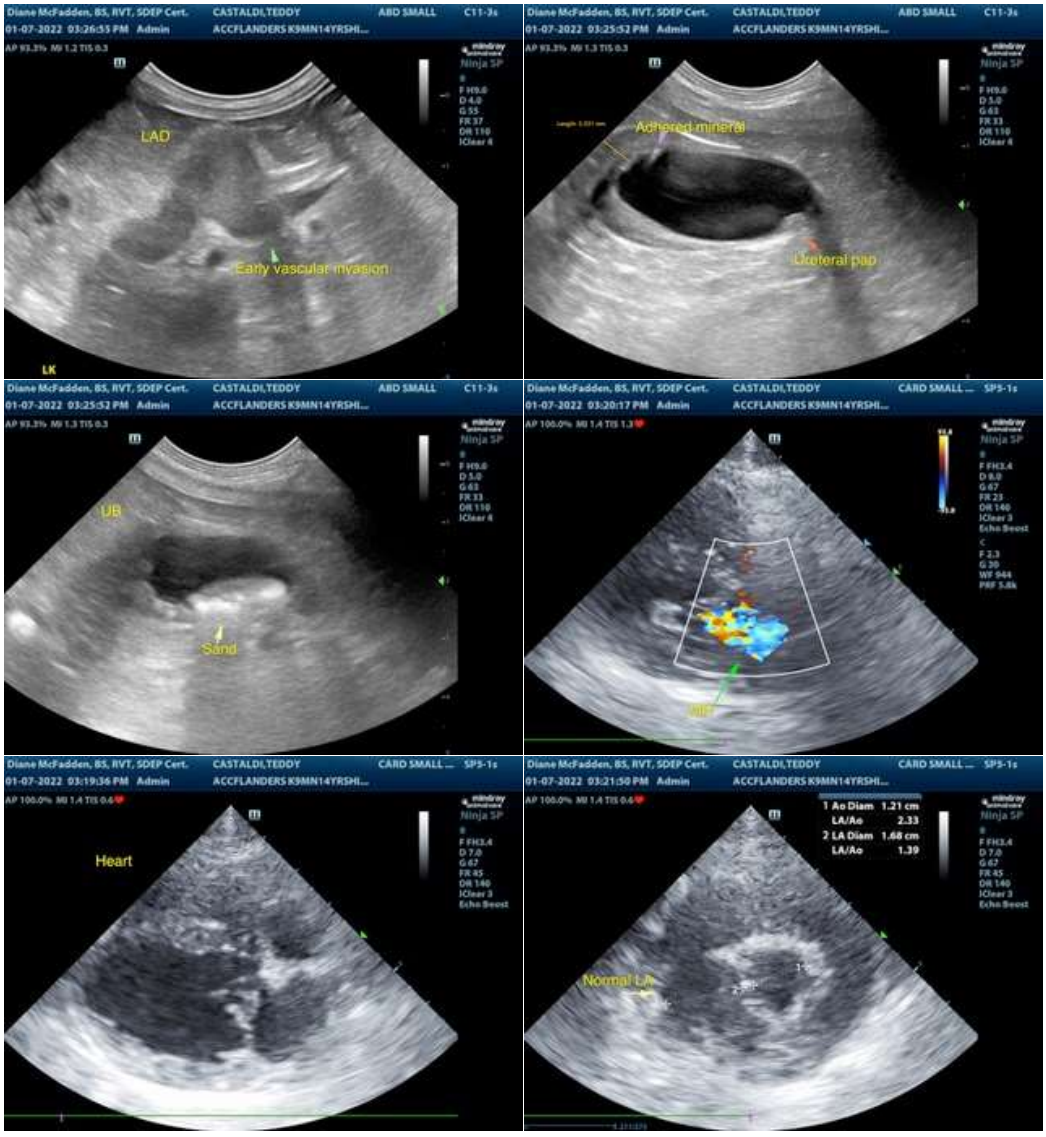
Dr. Hallihan

INVOICE

12999

DATE

1/7/22



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