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Clinical Sonography & Telecytology
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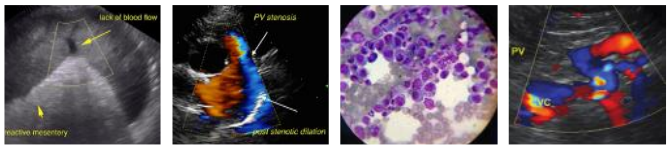


SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Nefertiti Kehlenbeck

SPECIES

Feline

BREED

DSH

SEX

FS

AGE

17

WEIGHT

9.4

INTERPRETED BY

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

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway Animal Hospital

REFERRING VET

Dr. Maniar

INVOICE

11778ag

DATE

10/03/2022

PRESENTING CLINICAL SIGNS

straining to urinate/defecate increased RR

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND HEART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	------	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT		NM	0.4	1.47	0.38	57.8	92.2
FELINE CARDIAC PARAMETERS	**LA/AO** (Boon)	**LA/AO HEART BASE** (Sisson)	**LA** 2D 4-chamber long axis AS to FW (Sisson) (cm)		**LVOT VEL.** (m/s)	**RVOT VEL.** (m/s)	**IVRT** (m/)
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7		<1.6	<1.3	40-60
PATIENT		1.35	1.2		1.1	0.84	
Adapted from June Boon,Veterinary Echocardiography,1998 Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

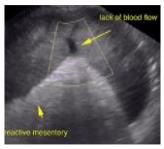
Cardiac Presentation

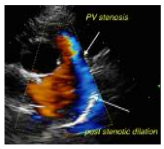
The echocardiogram in this patient demonstrated enlarged left atrial size based on 3 separate LA measurements. The cranial and caudal mitral valve leaflets presented normal linear structure and kinetics. The left ventricular septum and free wall revealed normal thicknesses, reduced contractility and mildly reduced left ventricular volume with subjective reduced diastolic filling. Some echogenic remodeling of the septum and free wall was present. This is most consistent with some level of myocardial fibrosis. The left ventricular outflow tract demonstrated normal laminar flow and subjective structural integrity. Normal LVOT velocity was present. The right atrium and auricle revealed increased size and normal content. No evidence of masses was noted or chamber overload. Tricuspid valvular assessment demonstrated adequate linear morphology and kinetics. 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). Normal RVOT velocity. No visible pericardial or free pleura fluid was noted or extra cardiac pathology in the visible planes. The cranial mediastinum and pericardial regions were free of masses in the visible window.

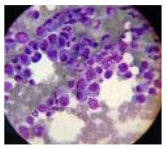
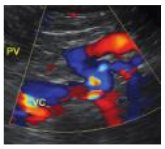
Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2 cm exhibited normal thickness and tone. No evidence of bladder overdistention or urethral obstructive criteria was present. Anechoic urine was present in the lumen with a minor to focal amount of potentially adhered hyperechoic mineral/sand present along the apical luminal surface. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted. The ventral urinary bladder wall measured 0.35 cm in width.

Normal size was 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. Small bilateral cortical





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infarcts with associated areas of asymmetrical renal margination were present. Scant bilateral pyelectasia was present. The left kidney measured 3.5 cm in length. The right kidney measured 3.3 cm in length.

The area of the aortic trifurcation was free of pathology.

Adrenal Glands

No overt pathology was present in the area of the left adrenal gland.

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured .05 cm width.

Spleen

The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. A solitary well-defined, symmetrical, echogenic nodule was present measuring 0.24 cm. 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 or neoplastic changes were not noted. The echogenic nodule tends to trend benign and is most consistent with benign hyperplasia or myelolipomas.

The spleen measured 0.7 cm in width at the level of the hilus.

Liver

The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. 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. No evidence of gallbladder or peripheral gallbladder inflammation was present. 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. No pathology was present at the level of the ileocolic junction.

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

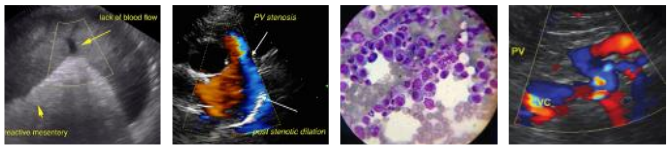
Pancreas

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

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS



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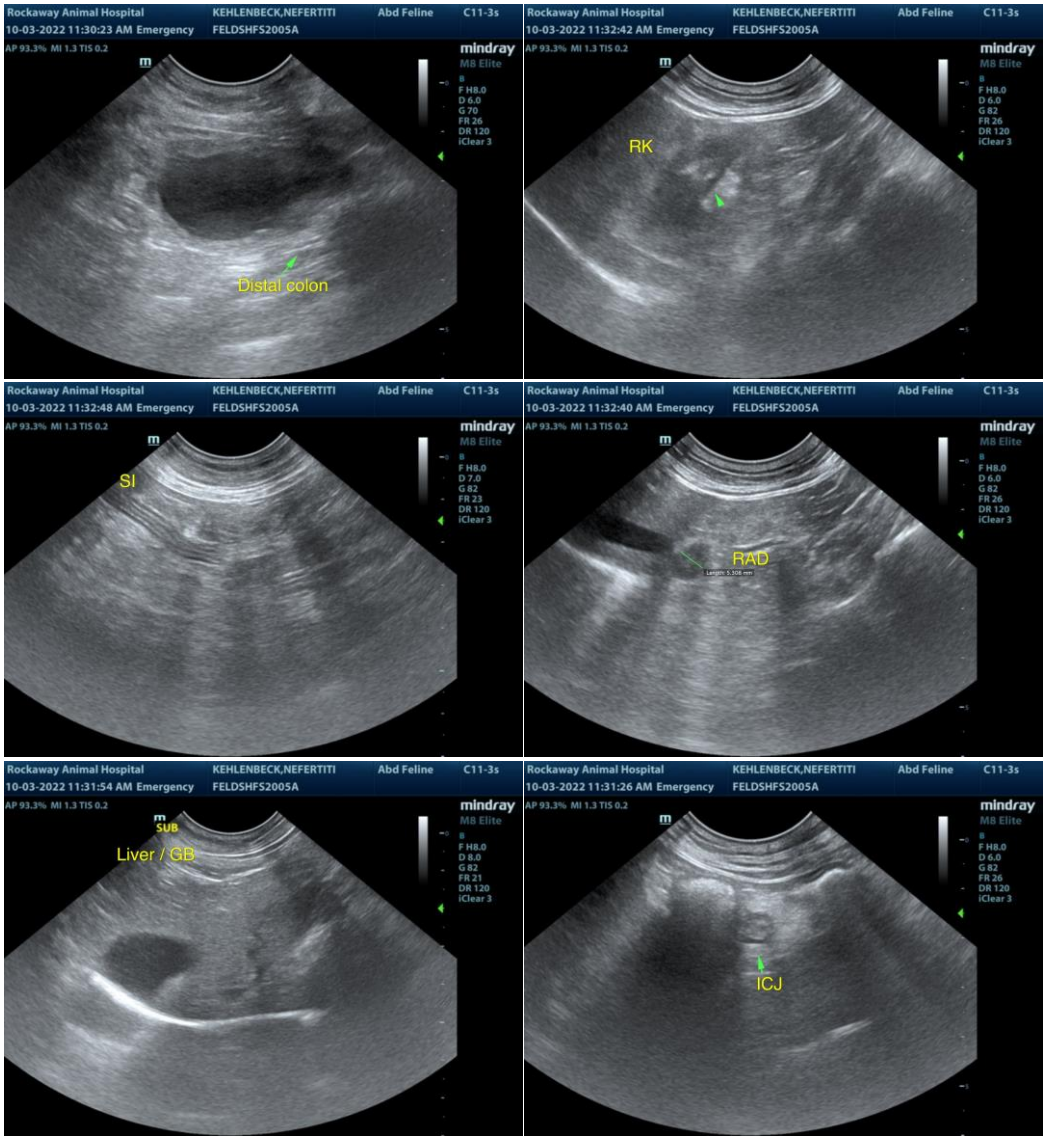
- Overtly normal cardiac structure and function with mild LV myocardial remodeling
- Normal left atrium
- Bilateral chronic renal changes with cortical infarcts and minor pyelectasia
- Benign splenic nodule-consistent with probable small myelolipoma
- Overtly normal urinary bladder with focal to minor possibly adhered mineral/sand

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The bilateral pyelectasia may be owing to chronic renal changes, potential pelvic scarring possibly owing to previous calculi passage, IV fluid therapy (if applicable). Urine C/S and protein: creatinine ratio on sterile urine sample is recommended. No overt evidence of pyelonephritis was observed. Potential for low grade chronic cystitis/idiopathic cystitis could be a consideration in this patient.

No overt evidence of distal colon pathology was observed.

Three view chest radiographs are recommended if not done to assess for occult thoracic pathology.



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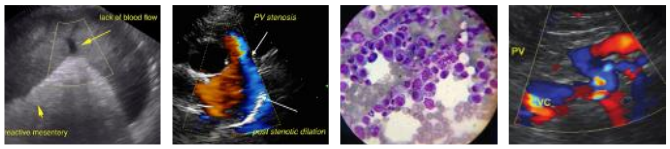

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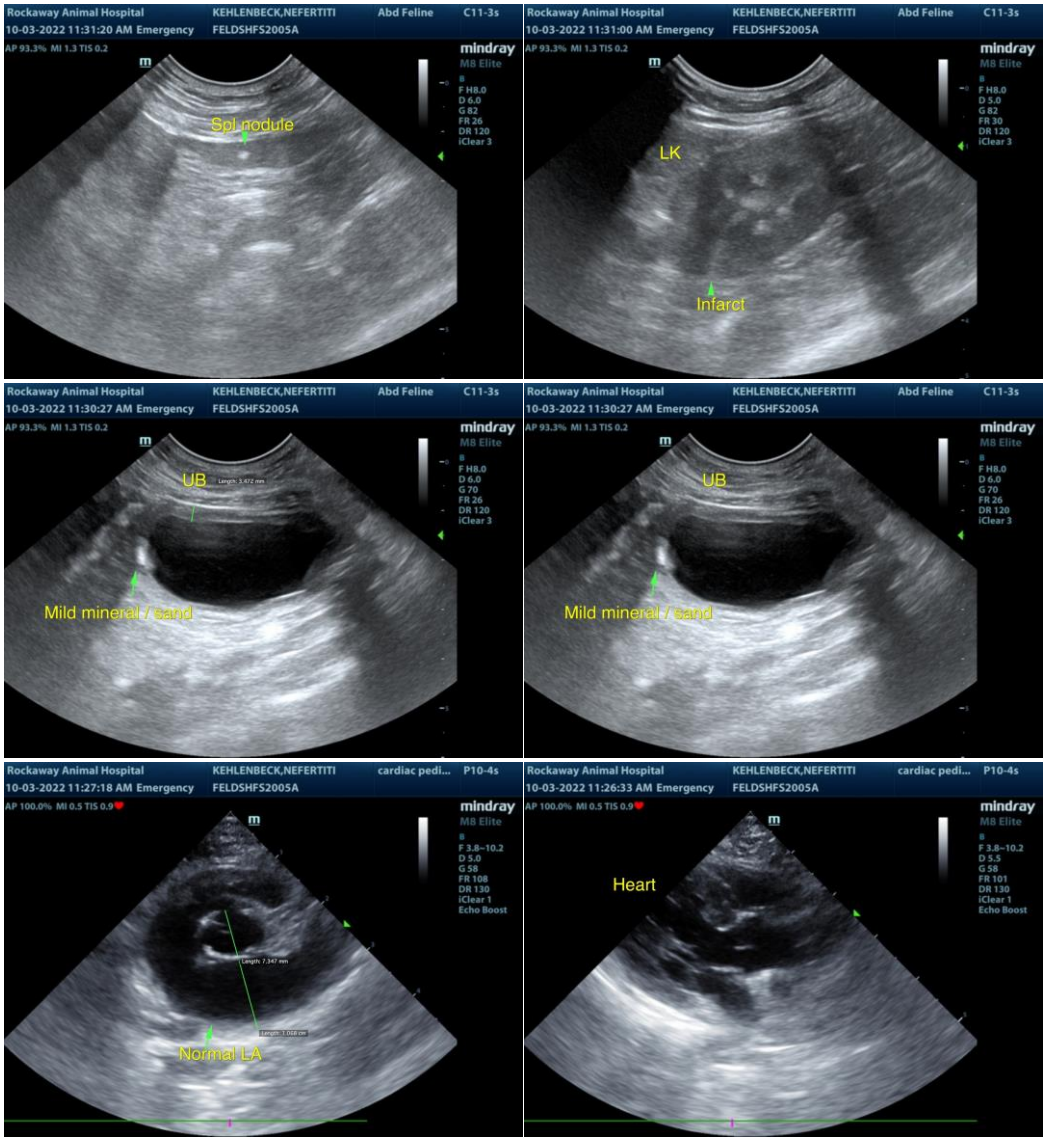

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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