



**PATIENT**

Zachery Holmes

**SPECIES**

Feline

**BREED**

Himalayan

**SEX**

MN

**AGE**

13 years 10 months

**WEIGHT**

8.5 kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Brian Barnes

**HOSPITAL NAME**

Westview Veterinary  
Hospital

**REFERRING VET**

Dr. Brian barns

**INVOICE**

13828

**DATE**

5/10/22

**PRESENTING CLINICAL SIGNS**

Previous Historical Problem list: 1) Obesity 2) Allergic dermatitis 3) IBD, (Avoid Chicken) 4) Pancreatitis 5) PLN 6) Left renal calculus- resolved 7) Bilateral Pyelectasia 8) Increased WBC count 9) Low Cobalamin and slightly low folate 10) Mild cardiomegaly , history of high normal BNP ( july 2020) 11) Dermal cyst left lumbar area Yearly exam and work up  
Abnormal PE/Chem/CBC/UA Results: Cardiac BNP is going up March 2019 24 Nov 2019 34 July 2020 97 XRAYs: The heart is normal in size and shape. The pulmonary vessels are normal in diameter and there is no evidence of heart failure. The lungs are unremarkable for age and body condition with a mild broncho-interstitial pattern. Tracheal/mainstem bronchi dynamic collapse

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND LIMITED CARDIAC**

**Urinary System**

The urinary bladder, trigone, and cystourethral junction exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Mild, nondependent, particulate sediment was present without evidence of calculus formation. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were 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 mild to moderate loss of corticomedullary symmetry and definition expected for the age of the patient. No overt evidence of left mineral or calculus. Minor left kidney pyelectasia was present. The left kidney measured 4.5 cm in length. The right kidney measured 4.6 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 0.38 cm width. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.34 cm width.

**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. The spleen measured 0.94 cm width at the level of the hilus.

**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 containing primarily anechoic content with minor nonmineralized debris. The cystic and common bile ducts were normal.



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***Gastrointestinal***

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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. Subtle increased gastric mural echogenic, which although not specific, may indicate minor gastric mural fat deposition sometimes seen in geriatric cats. No evidence of gastric mural pathology was noted. The gastric body wall width measured 0.30 cm.

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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 small intestinal wall width measured 0.23 cm.

**SEX**

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

**MN**

***Pancreas***

**AGE**

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia. Minor pancreatic duct dilation was present.

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***Free Abdomen***

8.5 kg

No overt lymphadenopathy or peritoneal effusion was present.

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***Brief Echocardiogram***

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

Subjective echocardiogram in this patient demonstrated normal left atrial size and overtly normal structure. The left ventricle presented subjective normal free wall and septal thicknesses with minor alinear contour. The myocardium presented some subjective echogenic remodeling consistent with expected age-related change. The left ventricular outflow tract demonstrated normal laminal systolic flow with mild aortic insufficiency on doppler. Subjective assessment of the right atrium and auricle revealed normal size, structure and content without overt evidence of masses. Mild TR was present on doppler. The right ventricle was of subjective normal size compared to the left ventricle with similar mild myocardial changes. Pulmonic tract assessment revealed normal systolic laminal flow and subjective diameter. No visible pericardial or free pleural fluid was noted. No overt evidence of cardiac, pericardial, or mediastinal masses was noted.

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**ULTRASONOGRAPHIC FINDINGS**

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- Overtly normal cardiac structure and function in light of sedation, minor subjective myocardial remodeling expected for age
- Normal left atrium
- Minor aortic valve and tricuspid valve insufficiency
- Urinary bladder sediment
- Moderate chronic renal changes with minor left kidney pyelectasia
- Minor gallbladder debris
- Heterogeneous pancreas with mild pancreatic duct dilation
- Sonographically unremarkable gastrointestinal tract

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## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Recheck echocardiogram is suggested if persistent / progressive elevation of BNP or if clinical signs arise.

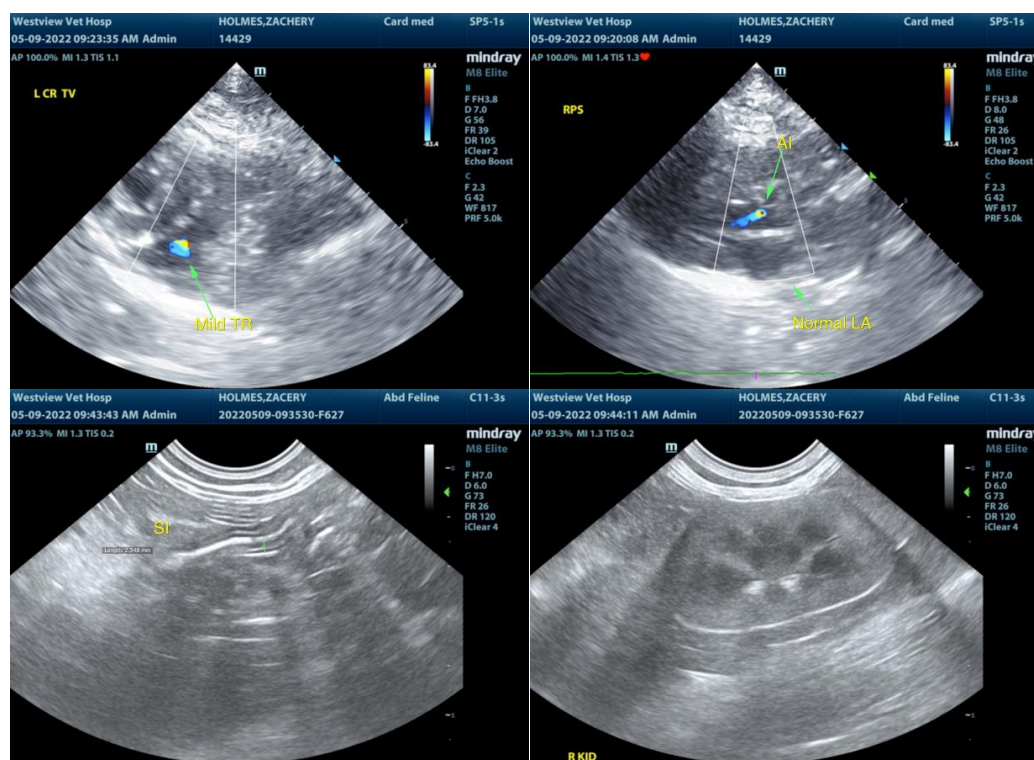
Largely mild geriatric abdomen without evidence of significant visceral pathology.

The pyelectasia in the left kidney is nonspecific yet suspected to be secondary to chronic renal changes or minor pelvic scarring.

The urinary bladder sediment may suggest cellular / crystalline debris or mucus. Cystocentesis for UA +/- C/S if evidence of inflammatory cells is recommended.

The gallbladder debris may be incidental but at times has been associated with cholestasis or hepatobiliary inflammation. Assessment of liver enzymes, if not recently done, is suggested.

Age-related pancreatic changes with minor remodeling are suspected. Potential for low-grade to chronic pancreatitis could be considered if previous history of pancreatitis or elevated Spec fPL.





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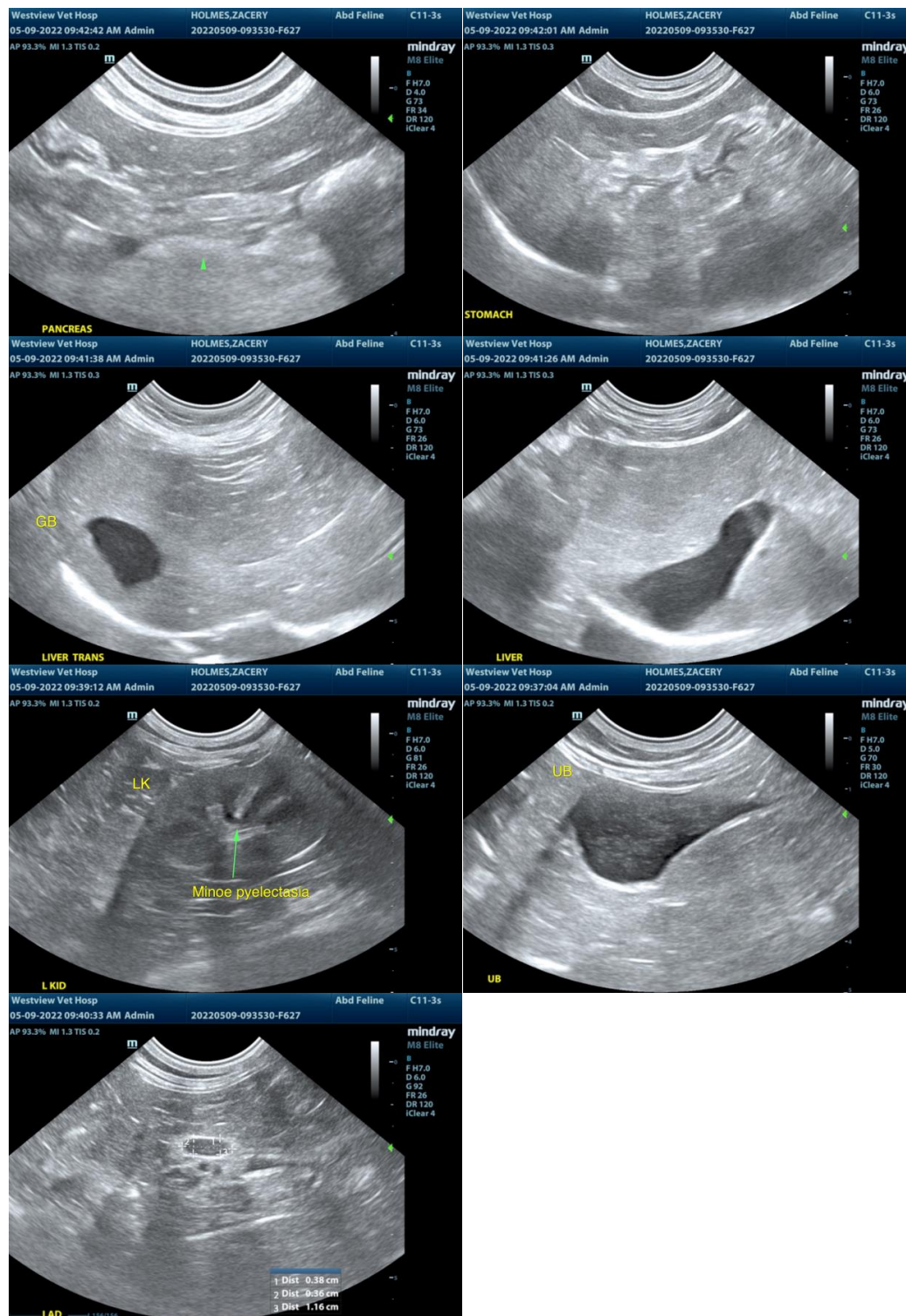
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



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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.

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