



**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT** Luca Miles

**SPECIES** Canine

**BREED** Doodle

**SEX** Neutered Male

**AGE** 11 Years

**WEIGHT** 26.6 kg

weight loss of 2 kg in the last month history of cough since April 2021 - has improved with furosemide and reactine (anti-histamine) on board but not gone entirely History of cardiomegaly on prior radiographs Lyme disease treated in 2020 Hypothyroid Rx Furosemide 30mg PO q12 hours ; Theophylline 200mg PO q12 hours; Levothyroxine 0.6 mg BID; Nexguard PO q30days  
Abnormal PE/Chem/CBC/UA Results: TT4 normal on levothyroxine Mild hypokalemia Mild basophilia Rad notes from rad referral July 2021: Evaluated are orthogonal radiographs of the thorax obtained on July 9, 2021 and compares it to right and left lateral radiographs of the thorax obtained on April 14, 2021. The images were submitted in JPEG format and are labeled Luca Miles and consist of 6 radiographs. The left atrium and auricle are mildly to moderately enlarged. The pulmonary vessels are mildly distended. The trachea is uniform and normal in height. Diffusely throughout the lungs there is a moderate broncho-interstitial pattern and within the cranioventral lungs there is a broncho-alveolar pulmonary pattern. The esophagus is nondistended. The surrounding skeletal structures are normal.  
Opinion & Recommendation 1. Mild to moderate left-sided cardiomegaly. This finding has increased in severity since previous study and differential diagnosis includes mitral insufficiency secondary to cardiomyopathy or valvular degeneration. Further assessment of this finding would require an echocardiogram. 2. Mild pulmonary vascular pattern. This finding may be indicative of congestion and also has mildly increased since the previous study. 3. Moderate diffuse broncho-interstitial pulmonary pattern and cranioventral broncho-alveolar pattern. The differential diagnosis for this finding includes bronchitis and bronchopneumonia of any cause including aspiration, community-acquired respiratory infection, Blastomycosis and other. The distribution of this pattern is not characteristic for cardiogenic edema although it should still be considered. Further evaluation of this patient should include an echocardiogram and/or cardiology consult. If congestive heart failure is ruled out as a cause for the cough, and further evaluation of this patient would require a bronchoalveolar lavage to acquire samples for cytology and cultures. Please see attached report and rads.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**INTERPRETED BY**

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

**Urinary System**

The urinary bladder exhibited mild distention owing increased urine, yet subjective normal ton. No evidence of inflammatory or neoplastic criteria. The urethra was normal in structure and tone to a depth of 4.0 cm.

**IMAGING PERFORMED BY**

Crystal Hill

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 loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 6.3 cm. The right kidney measured 6.9 cm.

**HOSPITAL NAME**

Oxford County VC

**Adrenal Glands**

The bilateral adrenal glands were normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 2.4 cm length x 0.78 cm at the caudal pole. The right adrenal gland measured 1.8 cm length x 0.67 cm at the caudal pole.

**REFERRING VET**

Dr. Halfon

**Spleen**

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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.

**DATE**

8/31/21


**PATIENT** *Liver*

Luca Miles The liver exhibited subjective mild generalized enlargement. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. Minor subjective increased prominence of the hepatic vasculature was noted, most notable at the level of the hepatic vein/caudal vena cava junction. The gallbladder was non-distended in size with primarily anechoic luminal content. The cystic and common bile ducts were normal.

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Transdiaphragmatic view revealed mild, focal comet tail lung pattern, which is echogenic sound wave interface with microconsolidations within the caudal lung field. The lung field should not be visualized by sonogram unless pathology is present. This is a non-specific finding, yet may be associated with alveolar/lung disease such as neoplasia, thromboembolic disease, chronic inflammatory disease with microconsolidation or other.

***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 small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Segmental intestinal digesta/chyme present.

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 evidence of ascites, lymphadenopathy or intraabdominal masses.

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**ULTRASONOGRAPHIC FINDINGS**

- Mild hepatomegaly with subjective minor yet compensated hepatic vasculature congestion
- Minor focal transdiaphragmatic comet tail artifact
- Mild gastric/gastrointestinal ingesta – suspect post-prandial presentation
- Bilateral mild chronic renal changes

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Pending echocardiographic review, the mildly prominent hepatic vasculature may suggest right heart disease or increased right heart/pulmonary pressure. Correlation with echocardiogram assessment is suggested. However, this appeared to be compensated without evidence of concurrent gallbladder wall edema or ascites. Otherwise, no evidence of significant visceral pathology such as neoplasia noted.



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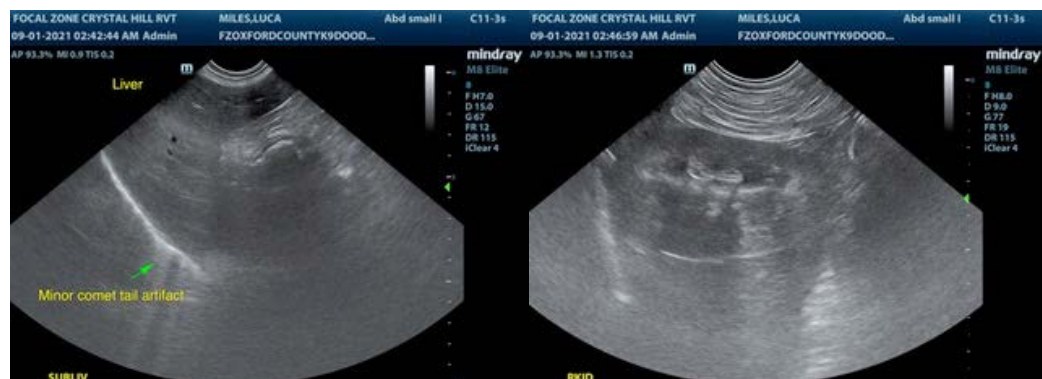
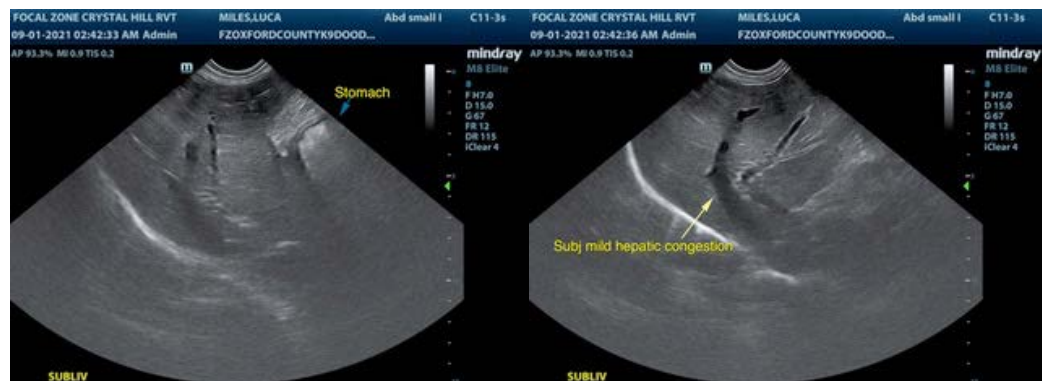
Dr. Halfon

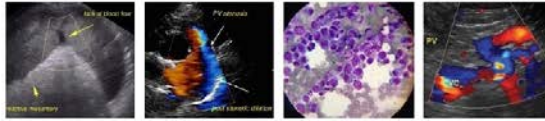
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**PATIENT**

Luca Miles

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.

**SPECIES**

Canine

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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info@SonoPath.com

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