



**PATIENT**

Lyric Krueger

**SPECIES**

Canine

**BREED**

Foxhound Mix

**SEX**

Spayed Female

**AGE**

8 Years

**WEIGHT**

54 Pounds

**INTERPRETED BY**

Andrea Nicastro, DMV,  
Diplomate DACVIM  
(Small Animal  
Internal Medicine)

**IMAGING  
PERFORMED BY**

Jessica Miller

**HOSPITAL NAME**

Summit Dog and Cat

**REFERRING VET**

Dr. Levitian

**INVOICE**

14027

**DATE**

10/27/21

**PRESENTING CLINICAL SIGNS**

History: Lethargic, decreased appetite and drinking more  
Abnormal PE/Chem/CBC/UA Results: BUN/UREA 32

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is moderately distended. The wall is normal in thickness with a slightly irregular mucosal surface in the region of the apex. A moderate amount of suspended echogenic debris is observed within the lumen. No cystic calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

The left kidney presented normal size (6.37 cm in length); with a normal shape, smooth peripheral margins and normal internal architecture. There is moderate loss of corticomedullary distinction. At least 1 small cortical cyst is seen. Several hyperechoic shadowing diverticular foci are observed. Trace pyelectasia is present (0.18 cm in the longitudinal plane). There is no evidence of infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal in size (7.26 cm in length); with a slightly irregular shape. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is mildly enlarged (0.49 cm at cranial pole) (0.72 cm at caudal pole) (2.96 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is mildly enlarged (0.81 cm at cranial pole) (cm 0.83 at caudal pole) (2.92 cm in length); with a normal shape. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**Spleen**

The spleen is normal in size (1.73 cm at the level of the hilus) with a normal capsular contour. The parenchyma is subtly mottled in appearance. No focal lesions are observed. Splenic vasculature is normal.

**Liver**

The liver is subjectively normal in size with slightly irregular peripheral contours. The parenchyma is hypoechoic relative to the spleen. An approximately 5.0 cm irregular coalescing cystic mass effect is observed deep mid liver, adjacent to the diaphragm. In addition, a 3.45 cm x 1.82 cm hyperechoic to slightly heterogeneous irregular nodule/mass is observed deep right liver, adjacent to the diaphragm. In the remaining parenchyma, there are minor changes consistent with age-related remodeling. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.



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The gall bladder is of normal contours and contains some gravity dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal/not seen.

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**Gastrointestinal**

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive or overt infiltrative disease is noted.

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**Pancreas**

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

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**Free Abdomen**

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

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**Other**

A brief echocardiogram (no charge) reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

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**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

- The hepatic lesions could be consistent with neoplasia (i.e., biliary cystadenoma/cystadenocarcinoma). Alternatively, benign cysts with hyperplastic change is possible. The remaining hepatic parenchymal changes are most consistent with age-related remodeling.

**Secondary Findings**

- Bilateral age-related renal pathology with dystrophic mineralization
- Urinary bladder debris
- Mild right adrenomegaly
- The splenic parenchyma changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis or splenitis with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).

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\*An obvious cause for the patients' clinical signs is not identified in the study. Considerations include underlying metabolic disease, occult neoplasia, low-grade pancreatitis, gastrointestinal disease, other.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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- Three view thoracic radiographs are recommended to assess for occult disease in the chest.



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- Given the urinary tract changes, A urinalysis and urine culture and sensitivity are recommended to assess for pyelonephritis.

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- A T4/Free T4 by equilibrium dialysis is recommended, if not already performed.

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- Also consider a GI panel, including serum cobalamin, folate, TLI and PLI.
- Regarding the hepatic changes, if an aggressive approach is desired, an exploratory surgery with mass removals and submission for histopathology can be considered. Alternatively, a repeat ultrasound in 4-6 weeks is an option to assess for progression.

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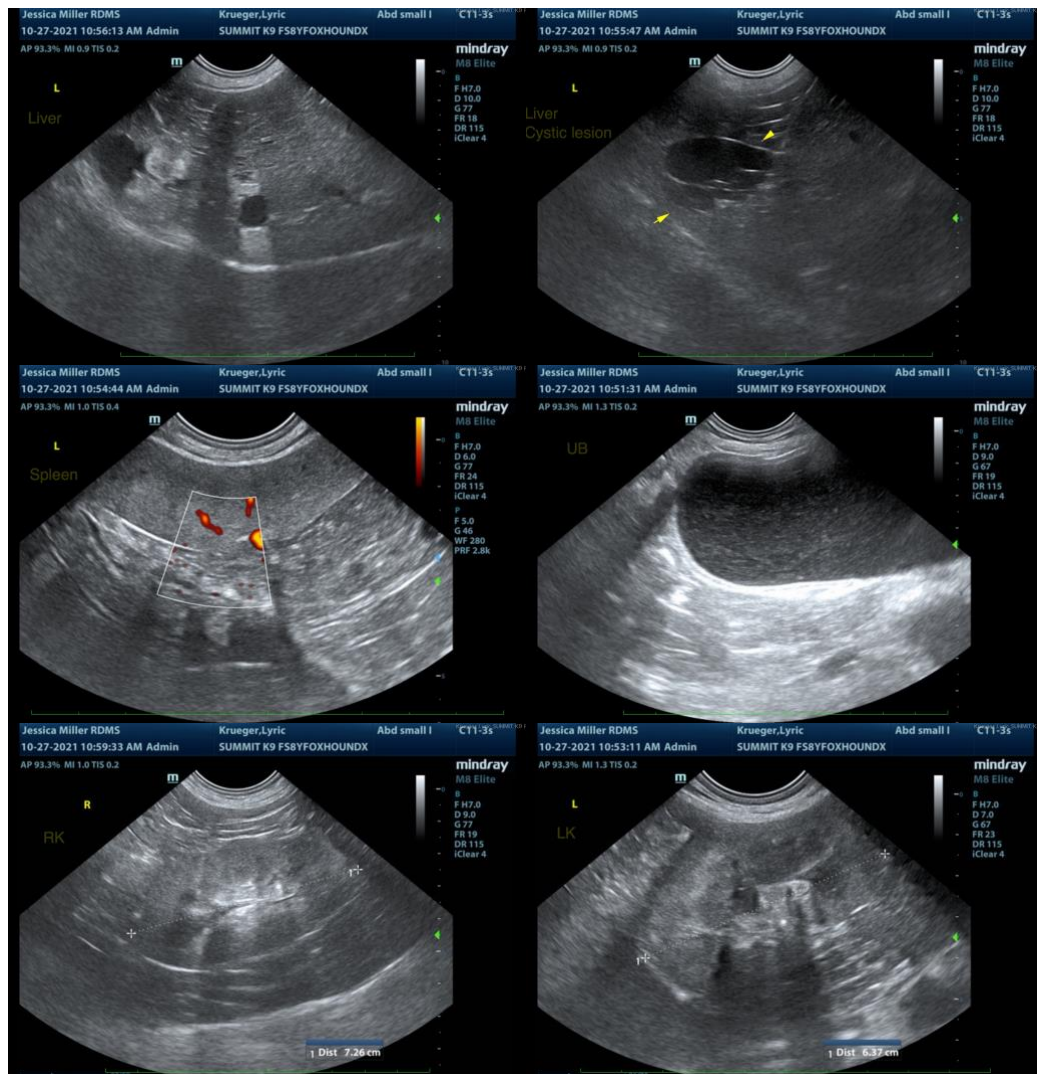
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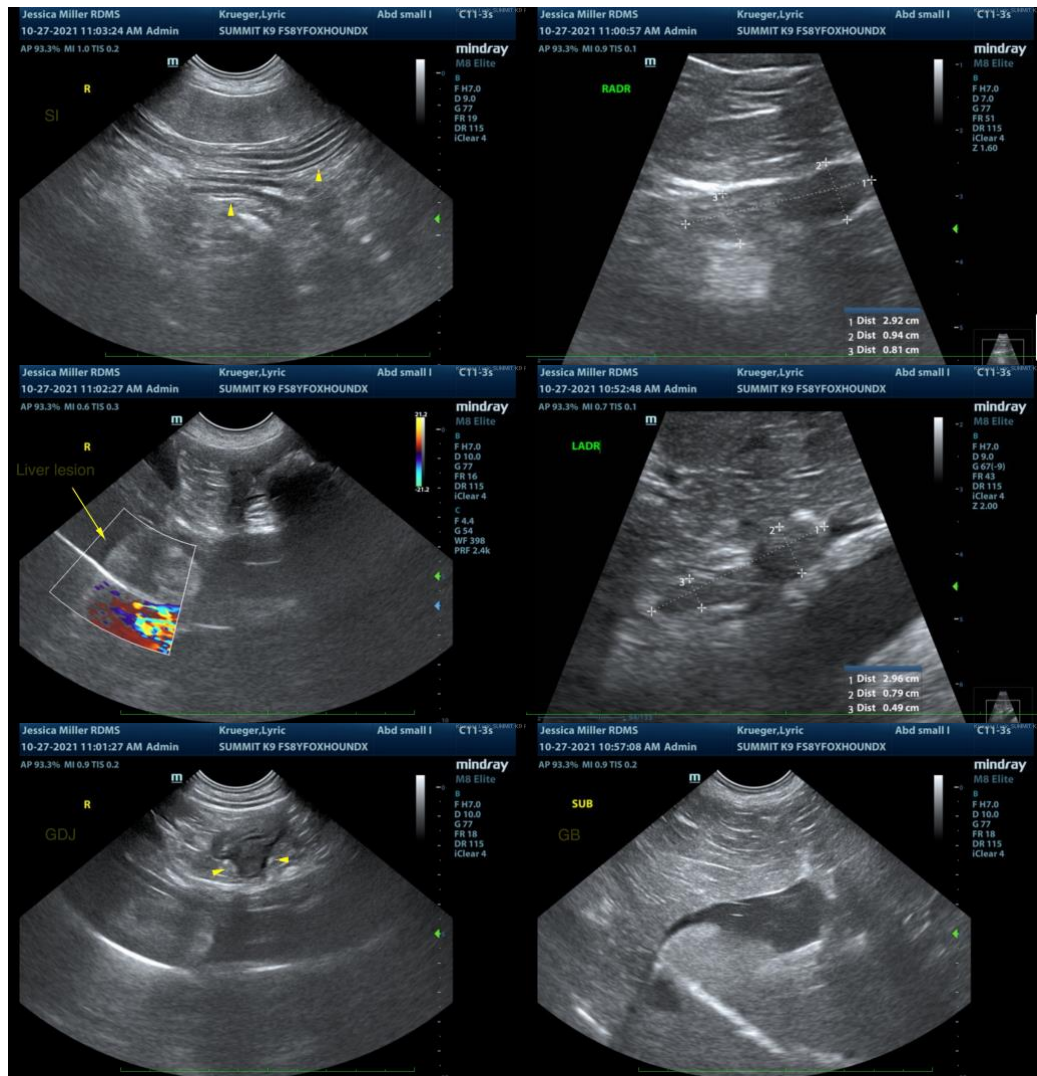
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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info@SonoPath.com