



**PATIENT PRESENTING CLINICAL SIGNS**

**Siri Filipkowski** History: Presented for acutely NAR that started this morning. Weakness, difficulty walking, lethargic, labored breathing. No c/s/v/d/PUPD.

**SPECIES** Abnormal PE/Chem/CBC/UA Results: Tachypneic with possible scant pleural effusion on thoracic radiographs. Mild azotemia, UA pending. Abdominal radiographs suspicious for mass effect in cranial abdomen. White count 28000 with a neutrophilia. Monocytosis. BUN 41. Creatinine 3.3. ALT 247.

Canine

**BREED ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Husky

**Urinary System**

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone is normal.

**SEX**

Spayed Female

The left kidney is normal size (6.17 cm in length); with a slightly irregular shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. A cortical infarct is suspected at the lateral aspect. There is no evidence of pyelectasia, nephroliths, or hydronephrosis. Renal vasculature is normal.

**AGE**

9 years

The right kidney is normal in size (6.78 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis.

**WEIGHT**

27 kg

**Adrenal Glands**

The left adrenal gland is normal size (0.60 cm at cranial pole) (0.55 cm at caudal pole); 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.

**INTERPRETED BY**

Andrea Nicastro,  
DVM, Diplomate  
ACVIM (Small Animal  
Internal Medicine)

The region of the right adrenal gland is evaluated No obvious pathology is observed.

**IMAGING PERFORMED BY**

Matthew Olcha

**Spleen**

The spleen is subjectively normal in size (2.41 cm in width at the level of the hilus) with normal curvilinear peripheral contours. The parenchyma is diffusely mottled in appearance. No distinct focal lesions are observed. Splenic vasculature is normal with no evidence of thrombosis.

**HOSPITAL NAME**

East Meadow VC

**Liver**

The liver is subjectively normal in size with slightly irregular peripheral contours. The parenchyma is hypoechoic relative to the spleen and subtly heterogenous in appearance. A 0.73 cm hypoechoic nodule is observed deep on the left side. In addition, a 1.80 cm hyperechoic nodule is seen. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

**REFERRING VET**

Dr. Matthew Olcha

The gall bladder is moderately distended. The wall is slightly thickened (up to 0.22 cm) with a “double-walled” effect. A small amount of aggregated, echogenic, gravity dependent debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

**Gastrointestinal**

**INVOICE** 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 pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is

11932

**DATE**

10.31.22

normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

#### ***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.

#### ***Free Abdomen***

A small amount of free fluid is present.

The abdominal lymph nodes are normal/not visible.

### **ULTRASONOGRAPHIC FINDINGS**

#### **Findings**

- The splenic parenchymal changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis, splenitis, antigenic stimulation or infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).
- Nonspecific diffuse hepatopathy. Differentials include inflammatory disease (i.e., chronic hepatitis), hepatotoxicosis (i.e., copper), early fibrosis, Leptospirosis, infiltrative neoplasia, or other hepatopathy. The hyperechoic hepatic nodule trends toward the benign (i.e., regenerative nodular hyperplasia).
- The mild “double-walled” gall bladder effect may be a normal variant for this patient or may be secondary increased hydrostatic pressure, low oncotic pressure, cholecystitis, autoimmune disease, anaphylaxis, other.
- Minor, bilateral age-related renal changes with a left cortical infarct
- Ascites. Differentials include increased vascular permeability (i.e., vasculitis), increased hydrostatic pressure, or low oncotic pressure (unlikely).

### **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given the presence of azotemia and an elevated ALT, Leptospirosis testing (i.e., blood and urine PCR, serology) is recommended.

Other diagnostics considerations include the following:

1. Urine culture and sensitivity
2. UPC (if proteinuria is present in the absence of a urinary tract infection)
3. Baseline blood pressure measurement
4. Given the possible presence of pleural effusion, consider an echocardiogram.
5. Given the splenic and hepatic parenchymal changes, consider fine-needle aspirates, if clotting status is appropriate. Twenty-five gauge-needles should be used.
6. Depending on the results of the above diagnostics, a surgical liver biopsy may be warranted. While awaiting test results, IV fluid diuresis, empirical treatment for Leptospirosis testing (i.e., amoxicillin-clavulanic hepatic antioxidants) and symptomatic care is recommended.



**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.

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