

**PATIENT PRESENTING CLINICAL SIGNS**

Lyna Hurt History: Referred to ER for anemia. Thoracic radiographs unremarkable. 4dx negative. Hematocrit 13%. Normal platelet count. Chemistry panel showed a mild ALP elevation.

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Canine **Urinary System**

The urinary bladder and visible portion of the pelvic urethra are normal for the degree of luminal distension. The urine is anechoic with no evidence of debris. Cystic calculi and discrete masses are not observed. The region of the trigone and visible portion of the proximal urethra are normal.

**BREED**

Labrador Retr

The left kidney is normal in size (7.85 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**SEX**

Spayed Female

The right kidney is normal in size (7.57 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**AGE**

9.11.2011

**Adrenal Glands**

The left adrenal gland is enlarged (0.98 cm at cranial pole) (1.29 cm at caudal pole) with a slightly irregular shape. The parenchyma is heterogenous with some loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature are normal.

**WEIGHT**

33 kg

The right adrenal gland is in normal size (1.06 cm at cranial pole) (0.72 cm at caudal pole) with a normal shape and 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*)

**Spleen**

The spleen is prominent in size (3.11 cm in width at the level of the hilus) with slightly irregular peripheral contours. Multiple, varying-sized splenic infarcts are observed throughout the organ. The remaining parenchyma is homogenous. Vasculature at the hilus appears normal.

**IMAGING PERFORMED BY**

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**Liver**

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and slightly mottled in appearance. No distinct focal lesions are observed. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

**HOSPITAL NAME**

Blue Pearl MP ER

The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of echogenic debris is observed within the lumen (some of which is gravity-dependent and some of which is adhered to the luminal surface). The cystic and common bile ducts are normal/not seen.

**REFERRING VET**

Dr. John Mcfadden

**Gastrointestinal**

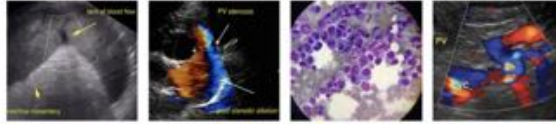
The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is mildly distended with ingesta. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The ileoceocolic junction and colonic wall are normal. The colonic lumen contains shadowing fecal material. There is no evidence of an obstructive pattern.

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**PATIENT**

**Lyna Hurt** *Pancreas*  
The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

**SPECIES**

Canine *Free Abdomen*  
There is no obvious evidence of free fluid. A 0.72 cm lymph node is observed in the right cranial quadrant.

**BREED**

Labrador Retr *Other*  
A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

**SEX**

Spayed Female

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

- Multiple suspected splenic infarcts. The irregular splenic contours may be secondary to infarction with retraction of the capsule or other underlying splenic pathology (i.e., extramedullary hematopoiesis, lymphoid hyperplasia, splenitis, antigenic stimulation, emerging neoplasia).
- The left adrenal changes are most consistent with hyperplasia. However, an emerging tumor cannot be completely excluded.

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**Secondary Findings**

- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.
- Mild bilateral chronic age-related renal changes
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The prominent lymph node in the right cranial quadrant is likely reactive with a lower possibility of emerging neoplasia.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- CBC with reticulocyte count and clinical pathology review (send to a diagnostic lab).
- A slide agglutination test is also recommended.
- A comprehensive tick panel, including PCR and serology (submission to North Carolina State University's Vector Borne Disease Diagnostic Lab should be considered.  
<https://cvm.ncsu.edu/research/labs/clinical-sciences/vector-borne-disease>)
- If the anemia remains non-regenerative, a bone marrow aspirate +/- core biopsy may be warranted.



**PATIENT**

Lyna Hurt

- While awaiting test results, symptomatic measures (i.e., blood transfusions, empirical treatment with doxycycline) should be considered.

**SPECIES**

Canine

- Regarding the splenic infarcts, consider initiation of an anti-thrombotic agent (i.e., clopidogrel) +/- broad-spectrum antibiotic (to help prevent infection within the parenchyma).

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Labrador Retr

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Spayed Female

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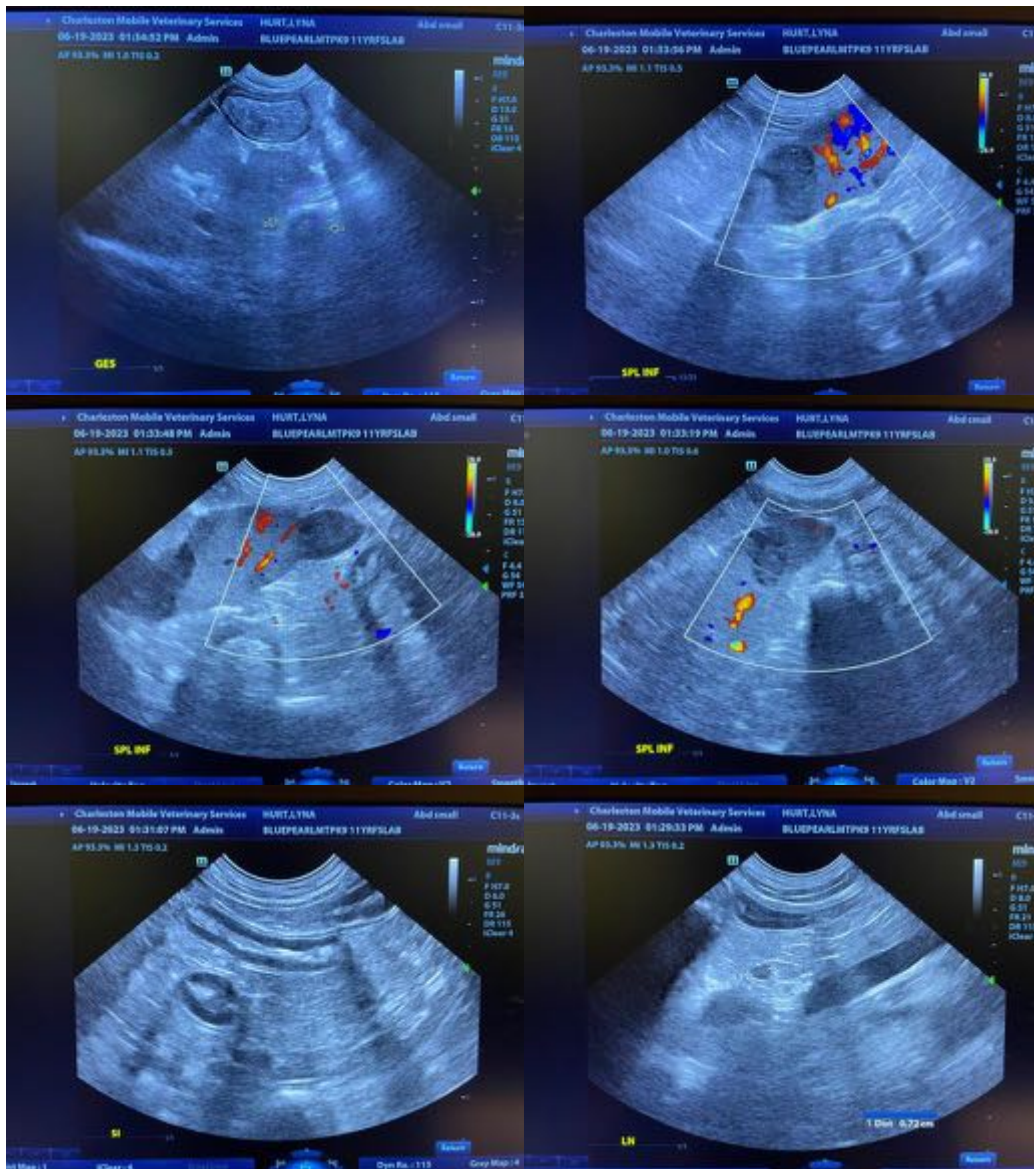
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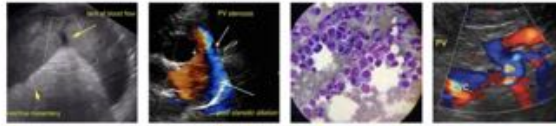


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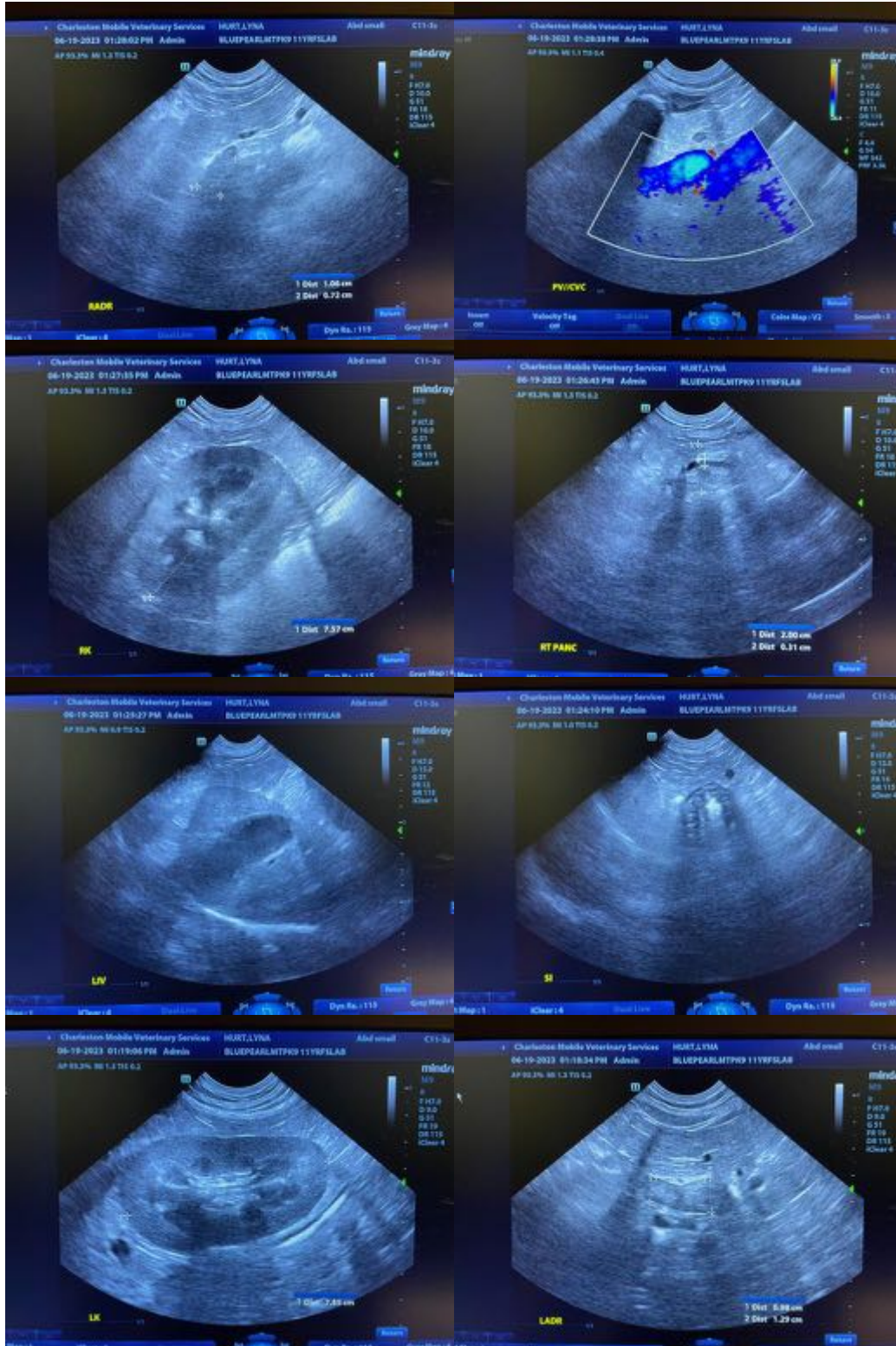
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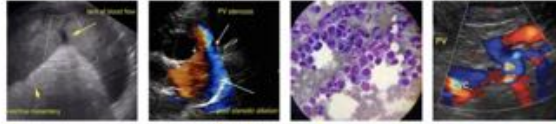
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**PATIENT** The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.  
Lyna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

**SPECIES** 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.

Canine **Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)**  
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