

**DATE**

4/8/22

**PRESENTING CLINICAL SIGNS**

Lethargic. Not eating well. One bout of diarrhea. One bout of urination in the house. All started on Sunday April 3. PE- lethargic, no bruising. 10lbs weight loss in less than one month.

**PATIENT**

Brooklyn Noel

Current Medications: Cerenia 160mg SID started 4/6, Ondansetron 8mg BID started 4/6, Metronidazole 250mg BID started 4/7, Prednisone 10mg given at noon on 4/7. No more until ultrasound completed. Lab Results: Thrombocytopenia, Slightly elevated ALT and AST, Low albumin at 2.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Requested by DVM.

Imaging Performed By: Andi Parkinson, RDMS.

**SPECIES**

Canine

**BREED**

Goldendoodle

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The urinary bladder is adequately filled. The wall is smooth and regular. No abnormalities are present with the trigone or proximal urethra, and there is no evidence of sediment, cystoliths, polyps or a mass.

**SEX**

Spayed Female

The left kidney measures 6.35 cm (within normal limits). The capsule is smooth. However, the cortex is mildly hyperechoic and a mild loss of the normal definition of the cortico-medullary junction is present. Very small, punctate, mineralizations of the diverticulae are present without evidence of nephroliths or pyelectasia. The surrounding mesentery is not hyperechoic.

**AGE**

11/2/14

The right kidney measures 6.09 cm (within normal limits). The capsule is smooth. However, the cortex is mildly hyperechoic and a mild loss of the normal definition of the cortico-medullary junction is present. Very small, punctate, mineralizations of the diverticulae are present without evidence of nephroliths or pyelectasia. The surrounding mesentery is not hyperechoic.

**WEIGHT**

48 lbs

**INTERPRETED BY**Eric Lindquist, DMV  
DABVP, Cert. IVUSS**Adrenal Glands**

The left adrenal gland measures 0.58 cm in diameter and 2.58 cm in length. No abnormalities are noted with the gland's shape, overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

**HOSPITAL NAME**

Harborside Mobile VC

The right adrenal gland measures 0.55 cm in the cranial pole, caudal pole 0.67 cm and 2.02 cm in length. No abnormalities are noted with the gland's shape, overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

**REFERRING VET**

Dr. Hawkins

**Spleen**

Moderate splenomegaly is noted. Although the echotexture is relatively homogenous, a very, subtle, mottled echotexture is present. Subjectively, it may be slightly hypoechoic compared to normal, however, this may also be due to contrast from the hyperechoic mesentery. The capsule is smooth. An obvious mass is not visualized. No abnormalities are observed with its vasculature, i.e. congestion and thrombi are not identified.

**INVOICE**

98153

Diffuse infiltrative disease, such as neoplasia, for example, lymphoma, mast cell, histiocytic sarcoma, are differential diagnosis for the splenic changes observed. Splenomegaly due to antigenic stimulation and secondary inflammation (splenitis) due to an immune mediated induced or infectious cause, and extramedullary hematopoiesis are considered unlikely (given the other sonographic findings), but cannot be excluded without performing a fine needle aspirate.

### **Liver**

Moderate to marked hepatomegaly is present. The borders are smooth and relatively sharp to very mildly rounded. It is homogenous, but in certain views, it is, subjectively, very mildly hypoechoic compared to normal. This, in conjunction with the other findings on Brooklyn's ultrasound, is suggestive of an infiltrative disease, such as lymphoma.

A trivial amount of echogenic material is visualized within the gallbladder, which is considered clinically insignificant. The biliary system is otherwise within normal limits.

### **Gastrointestinal**

The gastric wall and pylorus are within normal limits in thickness. There is no loss of definition of the normal architecture of the wall layers. No obvious abnormalities are observed with its peristalsis.

The small intestinal wall thickness is within normal limits and the definition of the wall layers is preserved. The colonic wall is not thickened and mural detail is considered normal. Soft stools are noted in the descending colon.

### **Pancreas**

No overt abnormalities are observed, however, both limbs appear mildly hypoechoic. This observation is likely "falsely created" by the contrast from the surrounding hyperechoic mesentery, rather than pancreatitis. A smoldering, early pancreatitis due to the inflammation in the surrounding area is another possibility.

### **Other:**

Lymphadenomegaly of multiple lymph nodes is observed. They are hypoechoic.

Examples:

1. Cranial abdomen: 2.24 cm in diameter, 4.0 cm in length; bilobed.
2. mesenteric lymph nodes – "scalloped", measuring 0.89 cm in diameter, 4.94 cm in length. The mesenteric lymph nodes are hypoechoic and the surrounding mesentery is hyperechoic.
3. sublumbar lymph node - 0.91 cm in diameter, 1.45 cm in length

The mesentery surrounding the spleen and liver is markedly hyperechoic.

Ascites is not visualized.

A mild amount of pleural effusion is present.

## **ULTRASONOGRAPHIC FINDINGS**

The ultrasound findings are highly suggestive of neoplasia, such as lymphoma or histiocytic sarcoma. Fine needle aspirates of the lymph nodes, spleen and liver may be performed after having rechecked a platelet count. The latter may have been falsely decreased due to the clot in the tube, however, certain neoplasms can cause thrombocytopenia.

Although less likely, an infectious cause cannot be excluded with certainty, for example, leptospirosis or tick borne diseases, including bartonellosis.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Evaluation for uveitis

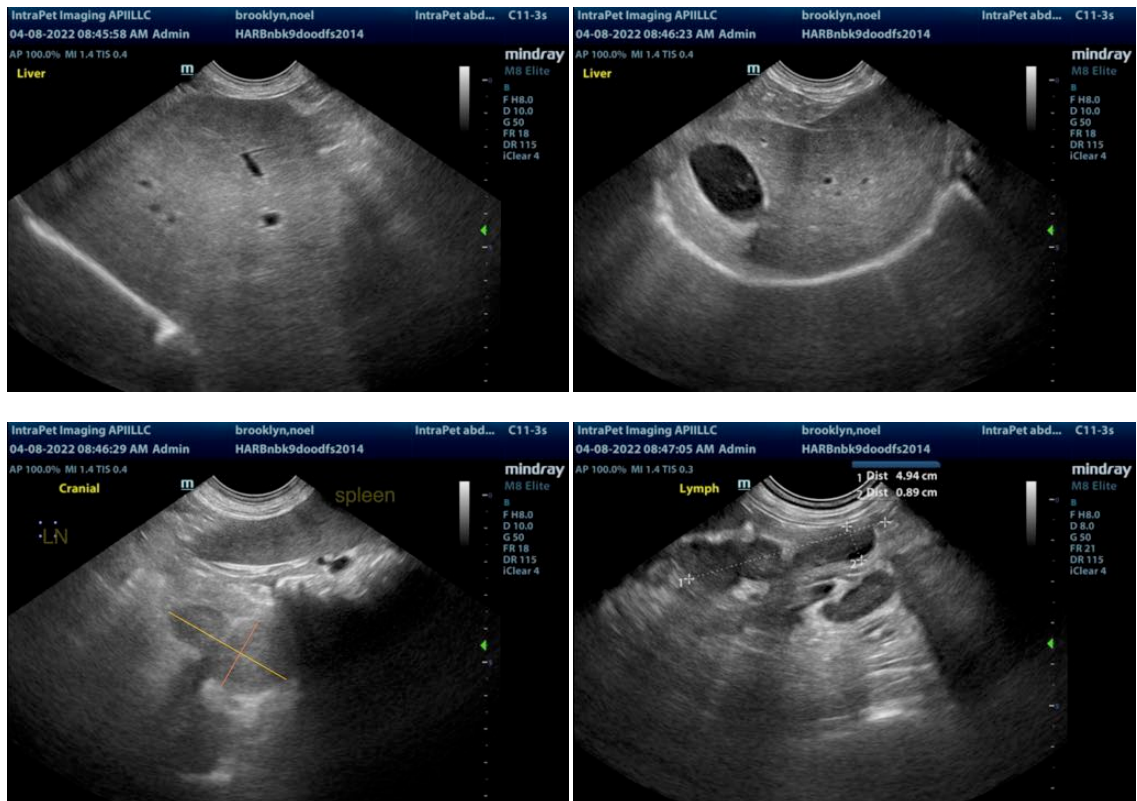
Perform a fundic exam

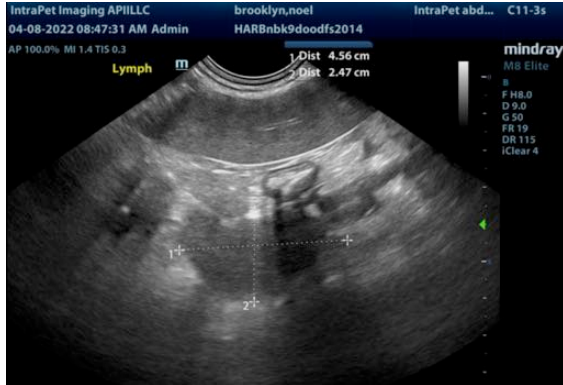
Evaluation of an arterial blood pressure

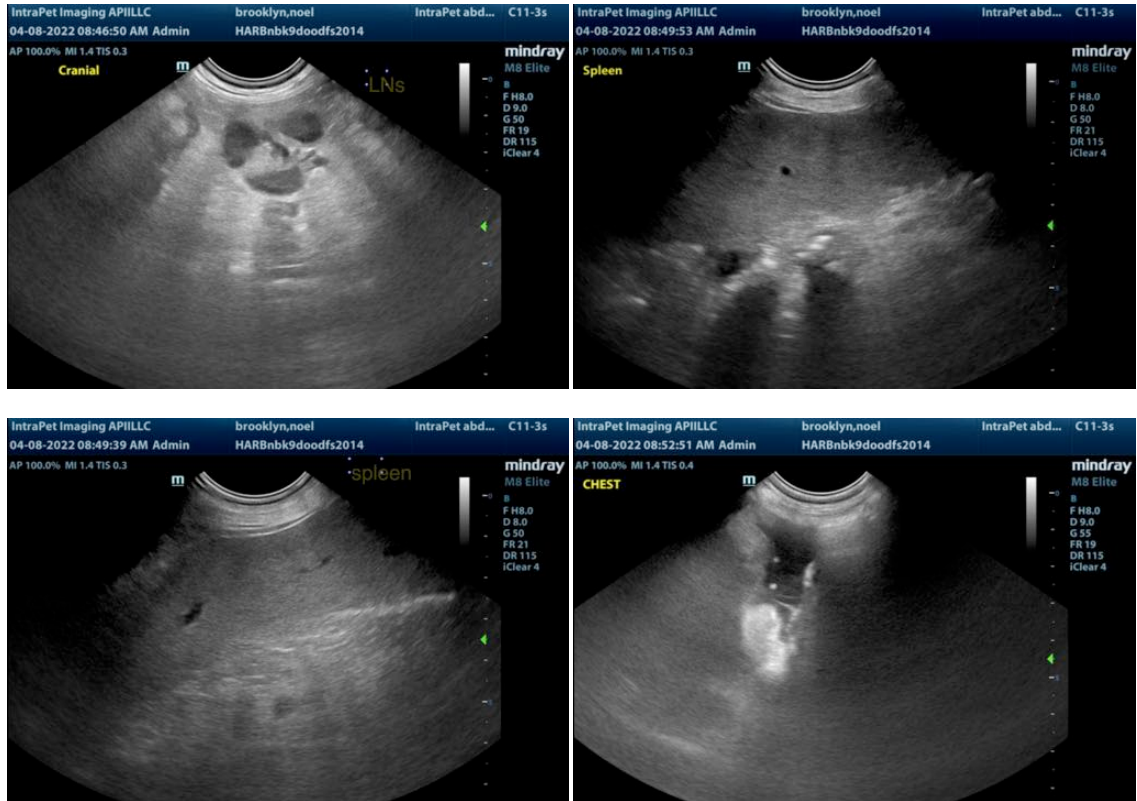
A reevaluation of Brooklyn's platelet count is suggested. If within normal limits, aspirates of the lymph nodes, liver and spleen may be performed.

Thoracocentesis may also be performed with cytology of the fluid obtained if FNAs of the above organs is too invasive due to a "borderline" platelet count or costly.

Depending on the above results, *Leptospira* antibody titers, a SNAP 4Dx, +/- testing for *Bartonella* spp. can be considered. Note, PCR for *Leptospira* spp. may be performed as she has not received beta lactam or penicillin antibiotics in the last 2 months.







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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