

**DATE PRESENTING CLINICAL SIGNS**

4/13/22 Diarrhea with blood, painful abdomen. X-rays show large abdominal mass.

**PATIENT**

Kaiya Short  
 Current Medications: None listed.  
 Date of Previous IntraPet Ultrasound: No previous.  
 Sedation: Not required to complete full diagnostic ultrasound.  
 Stat Report: Not requested.

**SPECIES**

Canine

**BREED**

German Shepherd

**SEX**

Spayed Female

**AGE**

9/9/12

**WEIGHT**

68.8 Pounds

**INTERPRETED BY**

Kathleen Sennello DVM,  
 MS, Diplomate ACVIM  
 (Small Animal Internal  
 Medicine)

**IMAGING PERFORMED BY**

Rachel Brilhart RDMS

**HOSPITAL NAME**

Mt. Airy AH

**REFERRING VET**

Dr. Riley

**INVOICE**

36873

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

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The left kidney has a normal shape and size (7.1 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (7.25 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is large in size measuring 1.02 cm at the cranial pole, 1.15 cm at the caudal pole, and 3.15 cm in length. It is observed in its normal position cranial to the left renal artery. It is somewhat abnormal in appearance in that there is a hyperechoic ill-defined region in the mid body of the adrenal, measuring 1.42 cm x 0.92 cm. This lesion does not deform the margins of the adrenal.

The right adrenal gland is large in size measuring 1.67 cm at the cranial pole, 1.04 cm at the caudal pole, and 3.51 cm in length. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is abnormal in appearance in that it is large.

**Spleen**

The spleen is large, heterogeneous, mottled and irregular. The blood flow through the hilus and splenic parenchyma appears normal. There is a very large cavitated mass effect towards the caudal aspect of the spleen measuring 9.92 cm x 6.35 cm with a suspected clot adhered.

**Liver**

The liver is large in size and irregular. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There are numerous large masses throughout the liver, mostly hypoechoic, some are slightly hyperechoic. Examples of these masses measure 4.81 cm x 3.84 cm, 3.4 cm x 2.91 cm, and 3.42 cm x 3.6 cm.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

### ***Gastrointestinal***

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

### ***Pancreas***

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

### ***Free Abdomen***

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

### ***Other***

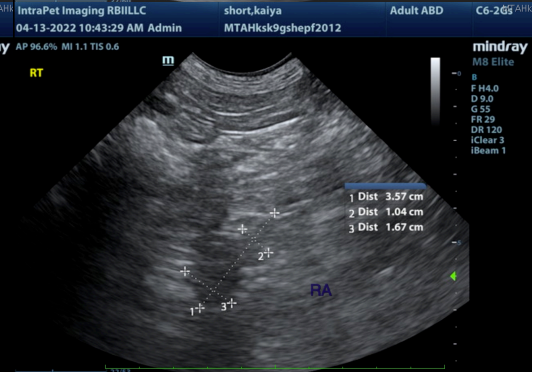
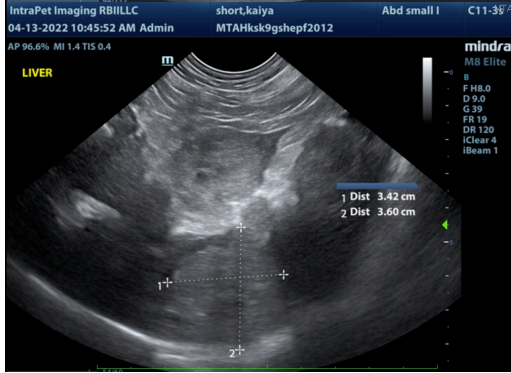
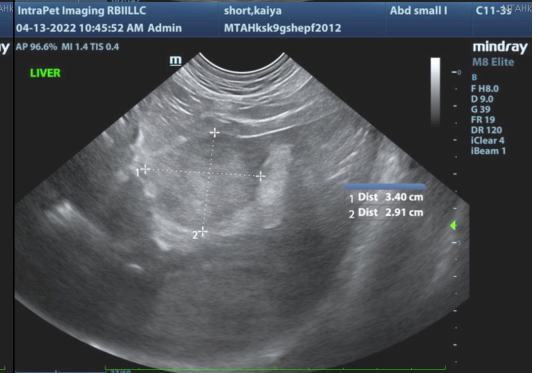
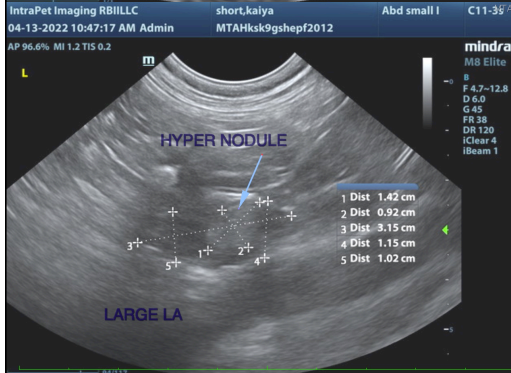
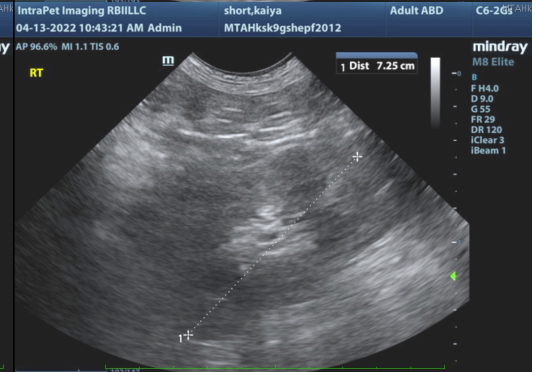
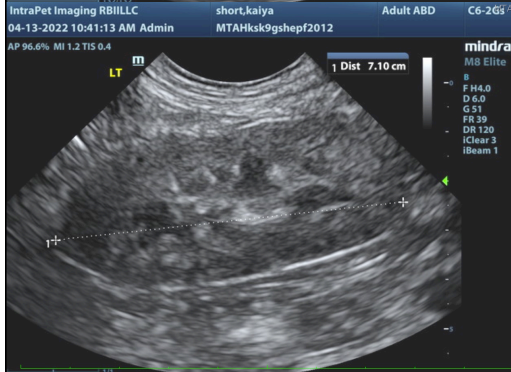
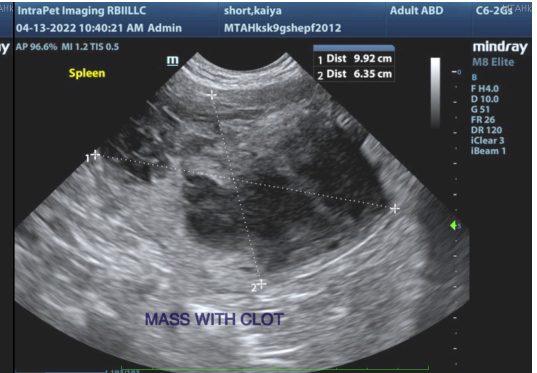
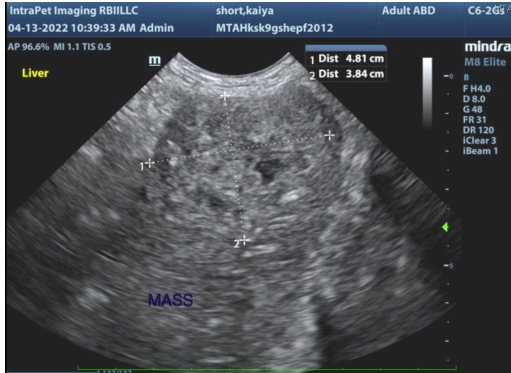
A brief view of the heart was submitted. No significant pericardial effusion was seen.

## **ULTRASONOGRAPHIC FINDINGS**

- Large, mottled spleen with a large, cavitated mass – A large, heterogenous mass with cavitations is present within the splenic parenchyma. The mass distorts the splenic capsule. Differentials for the mass include neoplasia (e.g., hemangiosarcoma, hemangioma), hematoma, abscess, other. A neoplastic process is favored.
- Large, irregular, heterogeneous liver with numerous large mass lesions – Concerning for metastatic disease based on the appearance of the spleen.
- Bilateral adrenomegaly with irregular adrenals and a hyperechoic region in the left adrenal – The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended. Both adrenals are somewhat irregular, and there is a hyperechoic nodule in the caudal pole of the left adrenal. This could be consistent with pituitary dependent hyperadrenocorticism or metastatic lesions.

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

There is a large, cavitated splenic mass that has the appearance of a clot effect, indicating the possibility of recent hemorrhage, although there is no free fluid in the abdomen. Additionally, there are multiple large mass effects within the liver, increasing concern for possible metastatic neoplasia. Recommend 3-view thoracic radiographs. Options moving forward include consultation with a veterinary oncologist regarding treatment options and prognosis. A fine needle aspirate of a liver lesion could be considered, and possibly a more solid area of the splenic mass. Prognosis is guarded, and concern for recurring hemorrhage is high.





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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