

**PATIENT PRESENTING CLINICAL SIGNS**

**Looch Garinger** Clinical Exam Findings: Pale mucous membranes, abdominal palpation unremarkable Current Medications Cerenia, Buprenorphine, Famotidine

**SPECIES**

Canie

Abnormal PE/Chem/CBC/UA Results: Snap cPI abnormal RBC 2.50 5.65 - 8.87 x10<sup>12</sup>/L LOW HCT 15.6 37.3 - 61.7 % LOW HGB 5.4 13.1 - 20.5 g/dL LOW PLT \* 92 148 - 484 K/ $\mu$ L LOW CA 1.92 1.98 - 3.00 mmol/L LOW AMYL 1704 500 - 1500 U/L HIGH

**BREED**

Boxer X

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**SEX**

**Urinary System**

Neutered Male

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

**AGE**

13yrs

The right kidney is normal in size (6.18 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**WEIGHT**

50lbs

The left kidney is normal in size (6.81 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**Adrenal Glands**

Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. Left adrenal gland measures 3.52 cm long, cranial 1.50 cm, caudal 1.26 cm. Right adrenal gland measures 2.10 cm long, cranial 1.43 cm, caudal 1.52 cm.

**IMAGING PERFORMED BY**

Kelly Reschny

**Spleen**

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

**HOSPITAL NAME**

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**Liver**

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is mottled by multifocal discrete hypoechoic nodules of varying sizes "moth-eaten". Visible vasculature and biliary tree appear normal without distension or congestion.

**REFERRING VET**

Dr. DePaulo

**INVOICE**

10074

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

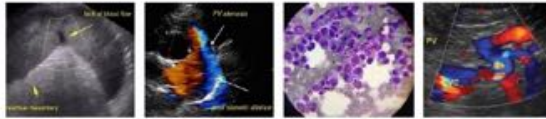
**DATE**

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**Gastrointestinal**

The stomach wall is normal in thickness (canine < 0.5 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material, or infiltrative disease. Pyloric outflow tract appears patent.

Diffusely, the visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small



**PATIENT**

intestine is empty. Focally, however, in the mid abdomen, potentially associated with the ileoceccocolic junction there is a 5.0 x 6.0 cm heterogenous primarily hypoechoic bowel mass.

Looch Garinger

**SPECIES**

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Canie

**Pancreas**

**BREED**

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Boxer X

**SEX**

**Free Abdomen**

Neutered Male

There is no apparent lymphadenopathy noted.

**AGE**

There is a scant amount of anechoic free fluid primarily around the spleen and in between liver lobes.

13yrs

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

- Bowel mass possibly involving the ileoceccocolic junction is concerning for infiltrative neoplasia, such as round cell neoplasia versus other, benign inflammatory, infectious, parasitic etc. diseases possible but considered much less likely.
- **Liver nodule** – Differentials for a discrete liver nodule include primarily benign changes such as nodular hyperplasia, fibrosis of an old hematoma, granuloma, etc.; however, while considered less likely, primary hepatic neoplasia, infiltrative round cell neoplasia and metastatic disease can mimic benign lesions and cannot be definitively ruled out.
- **Bilateral adrenomegaly** – consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism vs stress or normal variant. Interpret in combination with clinical signs of hyperadrenocorticism.
- Scant amount of anechoic free fluid is noted in these images.

50lbs

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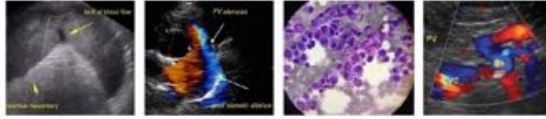
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given the presence of the bowel mass combined with the multi focal liver lesions, metastatic disease affecting the liver is a concern. However, that diagnosis cannot be definitely given without tissue sampling. Therefore, recommendations include three view thoracic radiographs for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated. Fine needle aspirates of the bowel mass and liver nodules are recommended if patients coagulation status is appropriate. Given this patient reported anemia and the scant amount of free abdominal fluid, hemorrhage is a possibility.

However, secondary homolysis is also a possibility therefore, further evaluation of the anemia is also recommended, beginning, if possible, with sampling of the free abdominal fluid. Although given the scant amount that may be difficult and/or further evaluation of the cells for possible evidence of homolysis. If the primary mass or one of the liver nodules is bleeding and tissue sampling is elected an exploratory laparotomy for biopsies, may be warranted over a cytologic evaluation via fine needle aspirate so that the source of the hemorrhage can be found and removed/stopped. Having said that if there is metastatic disease to the liver the likelihood of removing all of the visibly abnormal tissue surgically is unlikely.



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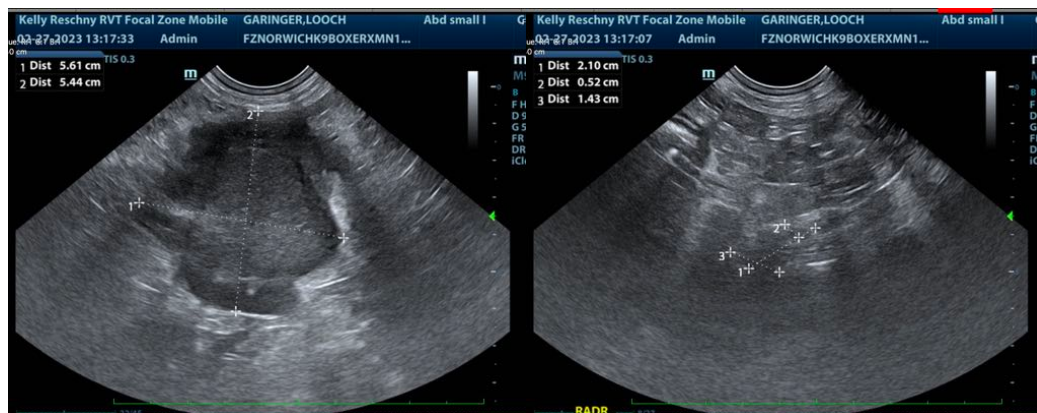
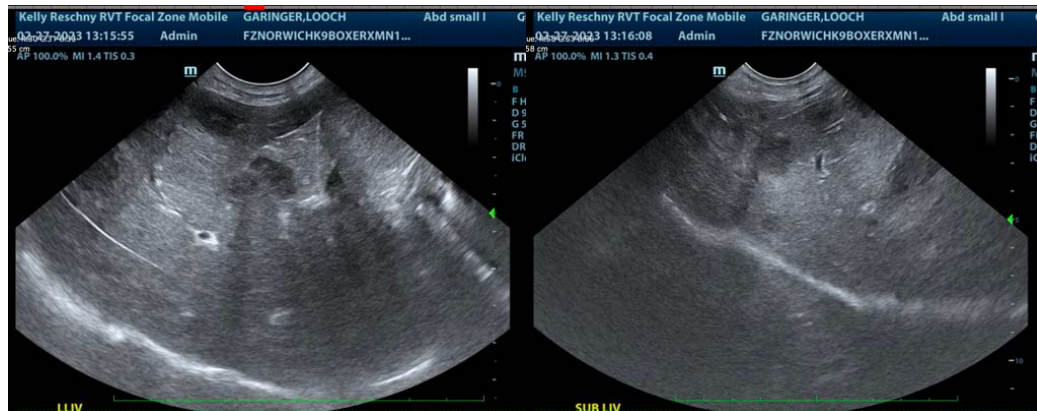
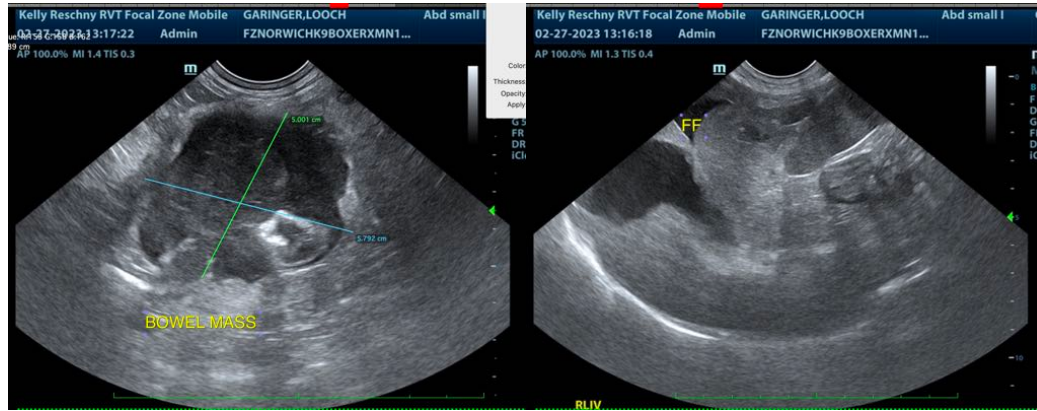
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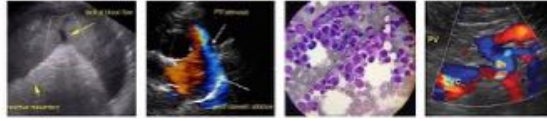
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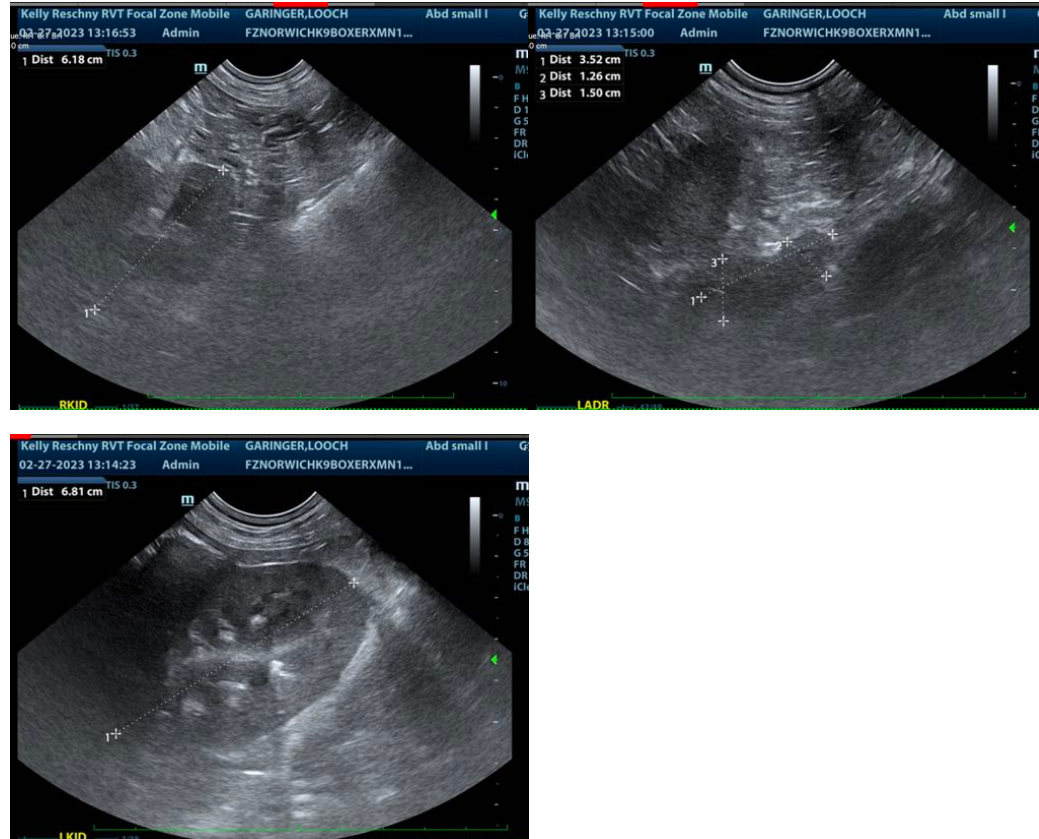
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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