

**DATE PRESENTING CLINICAL SIGNS**

8/4/22 Presents for sig. weight loss and intermittent hyporexia as well as pica AFAST scan 8/3- scant free fluid- possible abdominal mass.

**PATIENT**

Heimdall Glass Current Medications: N/A.  
Lab Results: Hct 19%, regenerative reticulocytosis, 145 thrombocytopenia 97 - confirmed on smear. ALP 1089, GGT 29, Na 138, Cl 98, BUN 35. Stress leukogram.  
Radiographs: Chest view- no obvious signs of mets. Poor serosal detail on abdominal rads- concerns for mass.  
Date of Previous IntraPet Ultrasound: No previous.  
Sedation: Not required to complete full diagnostic ultrasound.  
Stat Report: Stat requested.

**SPECIES**

Canine

**BREED**

Pit Bull

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

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**

11/17/12

Prostate is normal in size, echotexture and echogenicity for a neutered male.

**WEIGHT**

51 Pounds

The right kidney is normal in size (7.99 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

The left kidney is normal in size (6.65 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.

**IMAGING PERFORMED BY**

Rachel Brillhart RDMS

**Adrenal Glands**

Medial to the right kidney, in the area of the right adrenal gland, there is a 6.0 cm x 7.0 cm mixed heterogeneous, cavitated mass that may be the right adrenal gland or is obscuring visualization of a right adrenal gland.

**HOSPITAL NAME**

Eastern AH

The left adrenal gland is normal in size (3.41 cm long x 1.23 cm at the cranial pole and 1.3 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**REFERRING VET**

Dr. Haviland

**Spleen**

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. Multifocal mineral foci are noted. Splenic vasculature appears normal.

**INVOICE**

40122

**Liver**

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. A 2.0 cm x 3.0 cm cystic lesion is noted in what appears to be the left ventral liver. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is mildly overdistended with a moderate amount of non-dependent, mildly aggregated/inspissated sludge. Hypo to anechoic cystic areas are noted between the gallbladder sludge and luminal wall. The wall is otherwise smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion.

### ***Gastrointestinal***

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 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.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

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

### ***Pancreas***

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.

### ***Free Abdomen***

In the caudal abdomen, cranial to and ventral to the urinary bladder, there are multiple heterogeneous, cavitated, hypoechoic masses surrounded by free fluid and enhanced hyperechoic mesentery.

No appreciable pericardial effusion or heart base lesions are noted in these images.

## **PRIMARY FINDINGS**

- **Multiple heterogeneous, cavitated caudal abdominal masses** – suspected to be lymph node in origin. However, tissue of origin cannot be determined and other differentials include omental masses/nodules versus masses of vascular, endothelial origin, etc. These masses are surrounded by free fluid, which, given the patient's reported anemia, is concerning for possible hemoabdomen.
- **Cystic liver lesions** – These could be metastatic lesions. However, incidental benign liver cysts cannot be ruled out.
- **Similar appearing masses in the area of the right adrenal gland** – If associated with the right adrenal gland, differentials include both primary infiltrative adrenal neoplasia such as an adenocarcinoma, versus possibly a metastatic lesion from the same disease resulting in the caudal abdominal pathology.

## **SECONDARY FINDINGS**

- **Emerging mucocele** – Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. The non-dependent nature of this sludge combined with the cystic areas are suggestive, however, of possible emerging cystic mucosal hyperplasia or early gallbladder mucocele.
- **Spleen mineralization** – This is a benign change but can be associated with endocrinopathies, especially hyperadrenocorticism.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

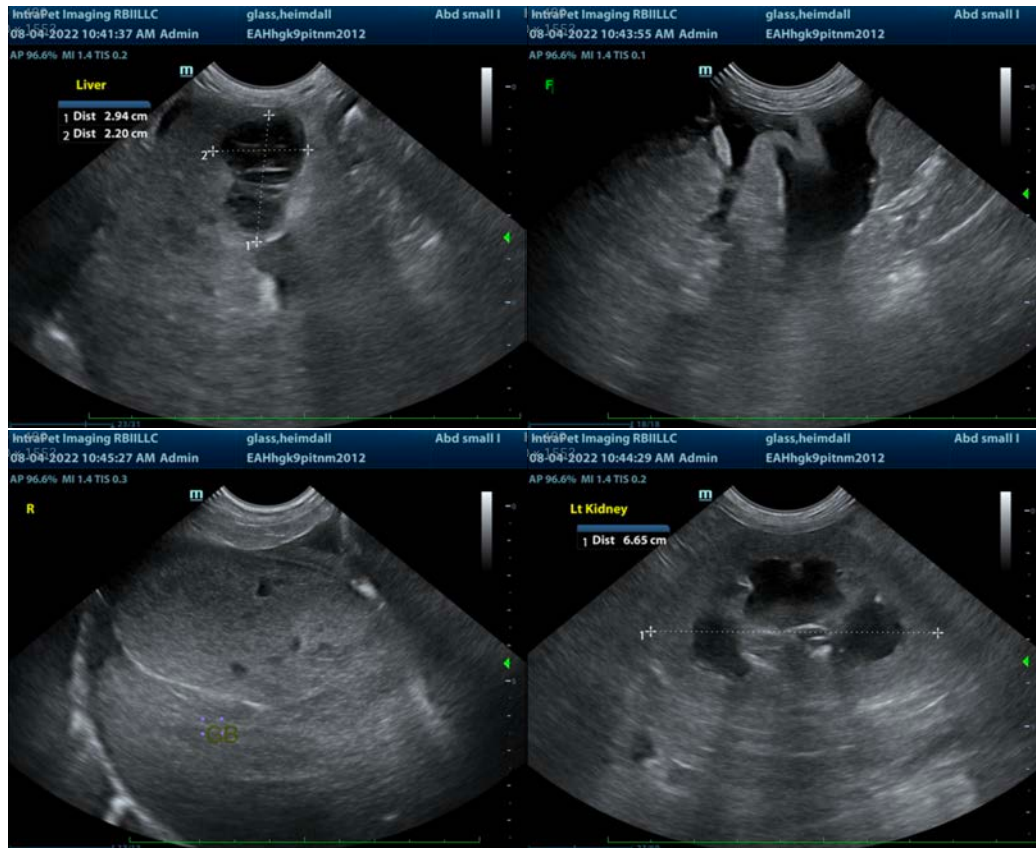
Fluid sampling is recommended to rule in/out a hemoabdomen. The ability to remove all of the visibly gross disease is unlikely based on this ultrasound, but if a hemoabdomen is diagnosed, surgery is recommended to explore and remove/biopsy the source of the hemorrhage, likely to be the reported caudal abdominal masses as well as the mass in the area of the right adrenal gland.

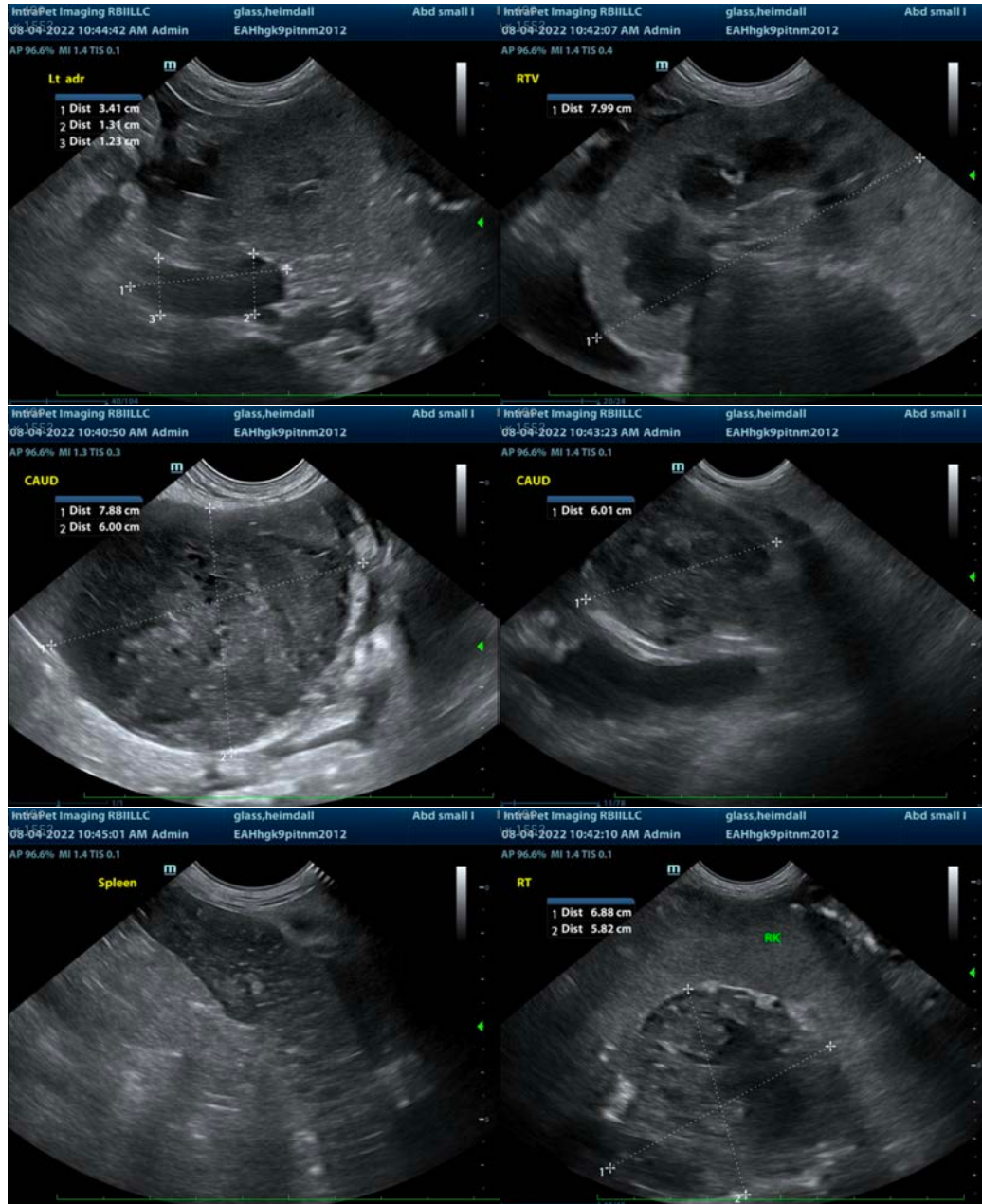
If the patient is stable, and more information is desired prior to surgery, a fine needle aspirate of the caudal abdominal masses could be considered if patient's coagulation status is appropriate. However, hemorrhage is considered a high risk.

A pre-surgical staging abdominal CT scan could also be considered for possibly better tissue origin differentiation, staging, etc.

If surgery is elected, in addition to removing the suspected hemorrhaging masses, a biopsy of the cystic liver lesion as well as assessment of gallbladder patency is also recommended.

Prior to surgery, a blood pressure is recommended given the adrenal change, if not already evaluated.





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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