

**DATE PRESENTING CLINICAL SIGNS**

9/21/22 CC: suddenly lethargic and walking funny. PE: bloated abdomen

PATIENT

Penny Baksh

Current Medications: None.

Lab Results: ProBNP elevated at 4,000. Cardiologist did not see significant enough heart disease that explained Penny's signs.

Sick thyroid syndrome...T4 = 0.5, Mildly anemic

Date of Previous IntraPet Ultrasound: No previous.

SPECIES

Canine

Sedation: Declined.

Stat Report: Not requested.

BREED

Beagle

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.

SEX

Spayed Female

The right kidney is normal in size (6.04 cm) with disruption of normal corticomedullary architecture caused by multifocal heterogeneous, primarily hypoechoic nodules. No mineral is observed.

AGE

3/30/08

The left kidney is normal in size (6.7 cm) with disruption of normal corticomedullary architecture caused by multifocal heterogeneous, primarily hypoechoic nodules. No mineral is observed.

WEIGHT

40 Pounds

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. The left adrenal gland measures 3.4 cm long x 1.5 cm at the cranial pole and 1.7 cm at the caudal pole. The right adrenal gland measures 3.4 cm long x 1.8 cm at the cranial pole and 1.5 cm at the caudal pole.

INTERPRETED BYBeth Johnson, DVM
DACVIM**Spleen**

Spleen is subjectively large in size with normal smooth margins. Parenchyma is normal in echogenicity with a coarse/heterogenous echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

IMAGING PERFORMED BY

Rachel Brillhart RDMS

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.

HOSPITAL NAME

Harborside Mobile VC

REFERRING VET

Dr. Hawkins

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.

INVOICE

41488

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 observed pancreas appears appropriately isoechoic to surrounding omental fat. The capsule is mildly irregular in shape. Parenchyma is mildly heterogenous and coarse. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

PRIMARY FINDINGS

- **Nodular Liver** - This finding is concerning for infiltrative disease such as round cell neoplasia or metastatic neoplasia. Benign disease (nodular hyperplasia) cannot be ruled out but is considered less likely.
- **Coarse splenomegaly** - can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia, as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.
- **Bilaterally nodular kidneys** - Most concerning for infiltrative round cell neoplasia such as lymphoma, especially given the concurrent pathology elsewhere.
- **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.

SECONDARY FINDINGS

- **Bilateral adrenomegaly** - consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism vs stress or normal variant. Interpret in combination with clinical signs of hyperadrenocorticism.
- **Pancreatic age-related remodeling** - Mild irregularities are consistent with benign age-related change. Low-grade smoldering chronic pancreatitis cannot be ruled out and should be suspected in the face of appropriate clinical signs.

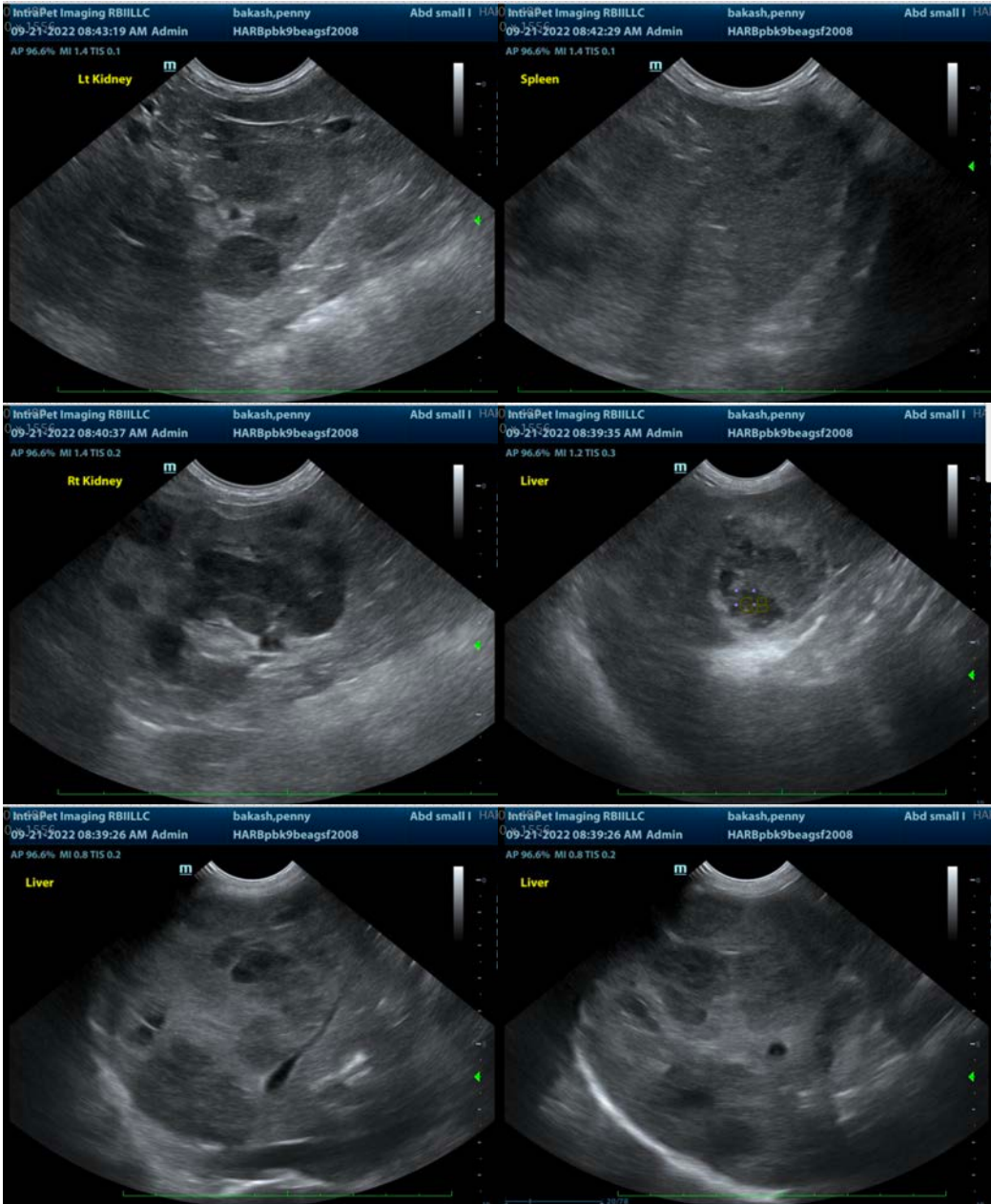
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

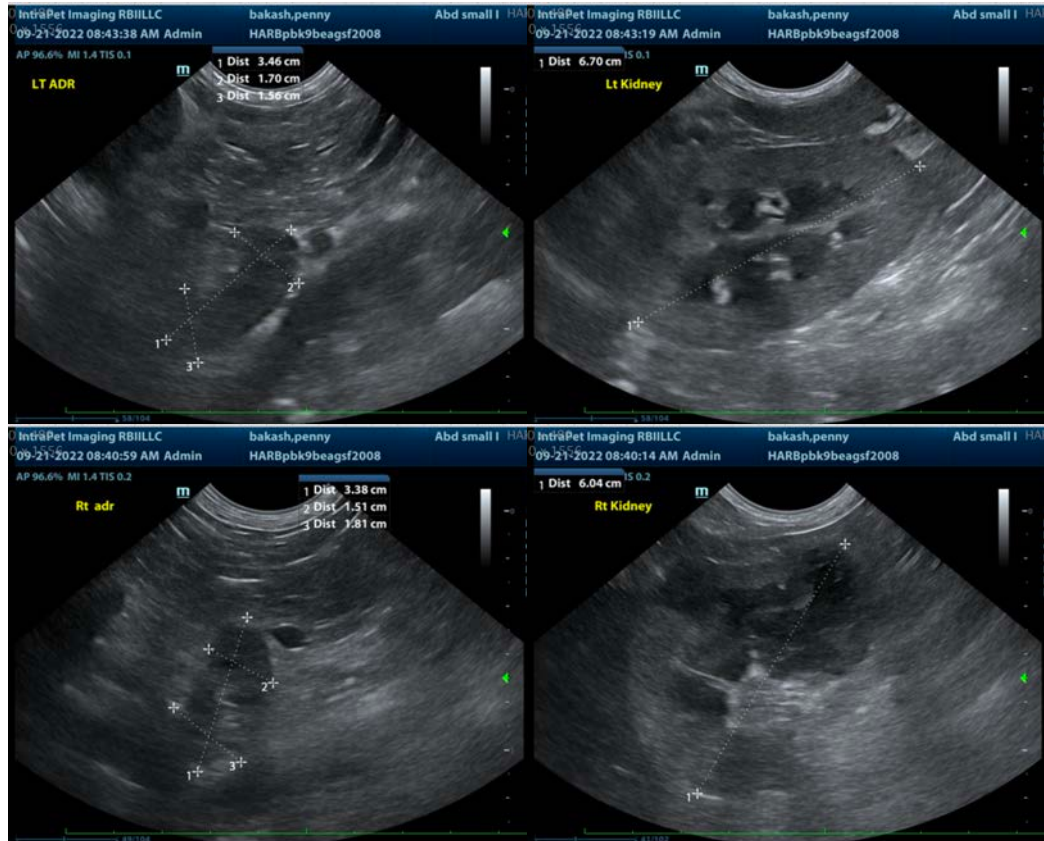
Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

A fine needle aspirate of the liver followed possibly by the kidneys and/or the spleen (if a diagnosis is not obtained from the liver aspirate) is recommended to look for evidence of lymphoma if patient's coagulation status is appropriate.

Given the adrenomegaly as well as the reported ataxia, a blood pressure is recommended if not recently evaluated.

Similarly, in case the ataxia was secondary to stroke-like activity, urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.





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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