

**DATE PRESENTING CLINICAL SIGNS**

3/2/22 When presented for routine exam, noted 3lbs weight loss since last year. When asked appetite has been picky. Per owner no vomiting or hairballs. Indoor only.

PATIENT

Jack Hughes Current Medications: Gave dose Mirtazapine and Vit B12 2/25/22.
Lab Results: BW WNL. Pro BNP Cardiopet 52 (0-100).

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

SPECIES

Feline

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

DLH

Urinary bladder is moderately distended. It has a normal uniform wall thickness (<0.2 cm). Contents include primarily anechoic fluid combined with suspended echogenic non-shadowing debris within the fluid. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

SEX

Neutered Male

The right kidney is normal in size (4.53 cm) and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. There is no evidence of pyelectasia, or mineral. A chronic infarct is present in the right kidney.

AGE

12/10/10

WEIGHT

12.7 Pounds

The left kidney is normal in size (4.2 cm) and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

INTERPRETED BY

Beth Johnson, DVM
DACVIM

Adrenal Glands

The right adrenal gland is normal in size (0.45 cm thick), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

IMAGING PERFORMED BY

Rachel Brilhart RDMS

The left adrenal gland is normal in size (0.38 cm thick), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

HOSPITAL NAME

Frederick Road VH

Spleen

Spleen is subjectively enlarged in size with rounded margins but intact capsule. Parenchyma is homogeneously coarse/mottled in echotexture and normal to hypoechoic in echogenicity. No focal nodules or masses are observed. Splenic vasculature appears normal.

REFERRING VET

Dr. Beyer

Liver

Liver is subjectively enlarged. Margins are smooth but round. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen. A 1.3 cm hypoechoic nodule with a hyperechoic center is noted in the deep right liver. Visible vasculature and biliary tree appear normal without distension or congestion.

INVOICE

35847

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.

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. Normal layering is maintained except for a diffusely disproportionately thick muscularis layer relative to mucosa (primarily of the ileum). 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

There is no evidence of peritoneal effusion. Hypoechoic prominent mesenteric lymph nodes are appreciated.

PRIMARY FINDINGS

- Thick muscularis – This finding has been reported in cats with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma.
- Hyperechoic hepatomegaly – consistent with benign hepatic lipidosis. Infiltrative disease such as amyloidosis or neoplasia, such as mast cell tumor or less likely, lymphoma, is also possible.
- Discrete hypoechoic hepatic nodule with a hyperechoic center – Differentials include the same underlying etiologies as those causing the diffuse changes. However, given the discrete appearance and the somewhat target lesion appearance, infiltrative neoplasia such as round cell neoplasia or metastatic neoplasia rises slightly higher on the list of differentials.
- 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, amyloidosis as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.
- Mesenteric lymphadenopathy – Reactivity as well as infiltrative neoplasia disease considered possible.

SECONDARY FINDINGS

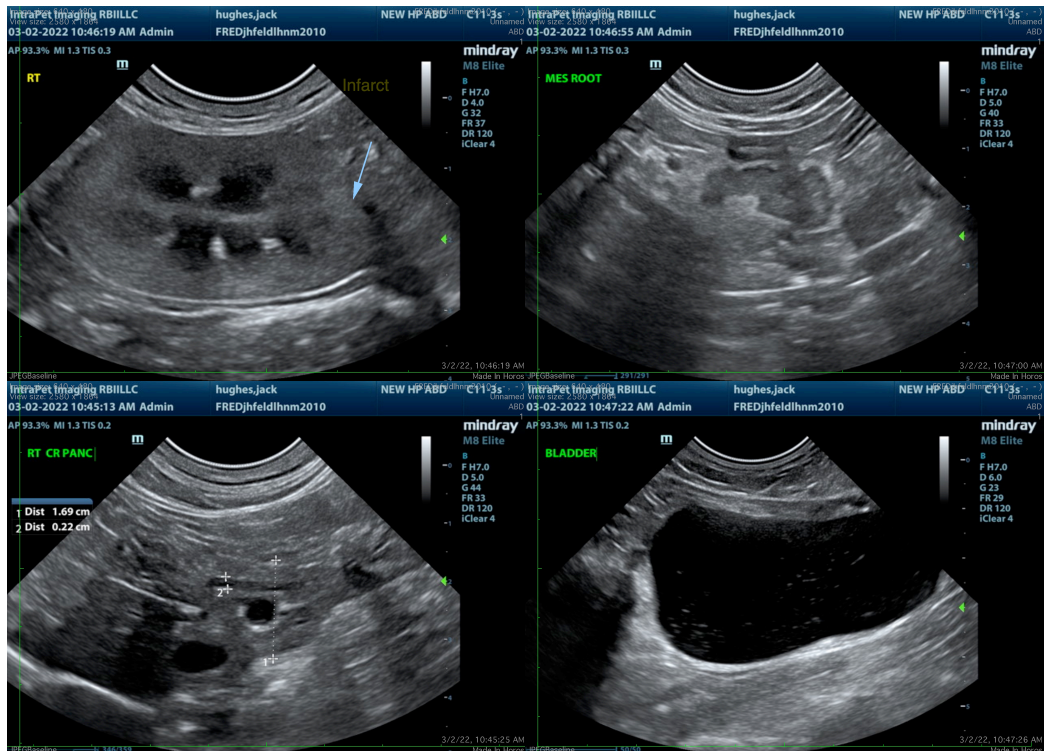
- Urinary bladder sediment – Urine changes are most consistent with incidental suspended lipid in a cat, however, cellular debris or crystalluria cannot be ruled out and should be interpreted in combination with urinalysis results.
- Age related kidney change – This finding is expected/consistent with age-related mild degenerative disease and should be interpreted clinically in combination with laboratory changes.
- Chronic infarct right kidney

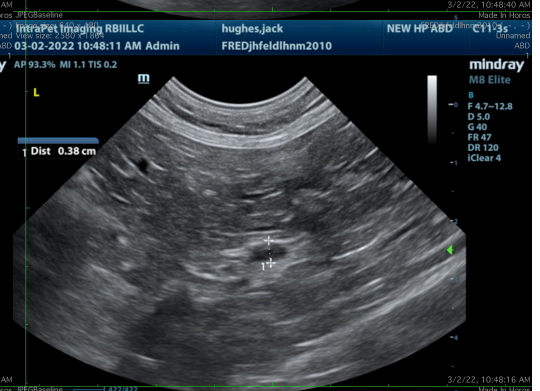
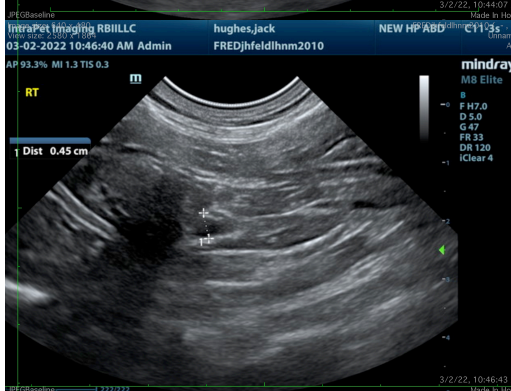
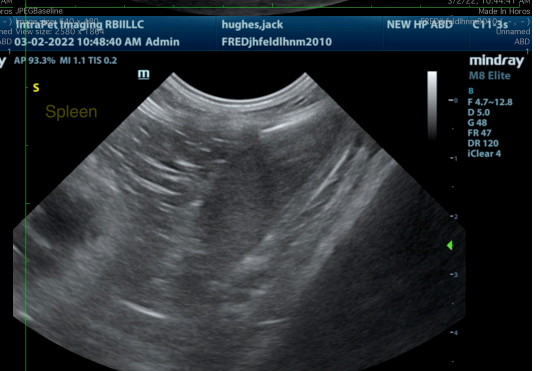
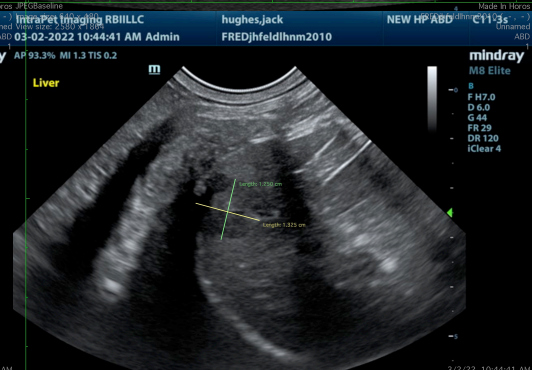
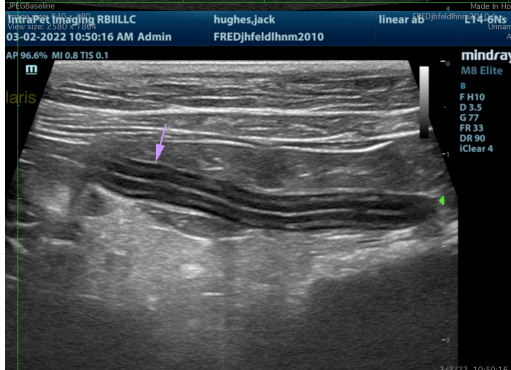
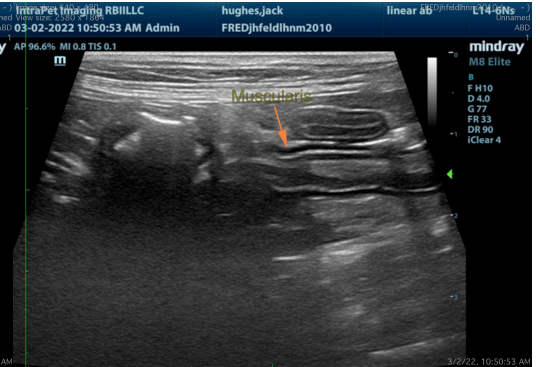
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

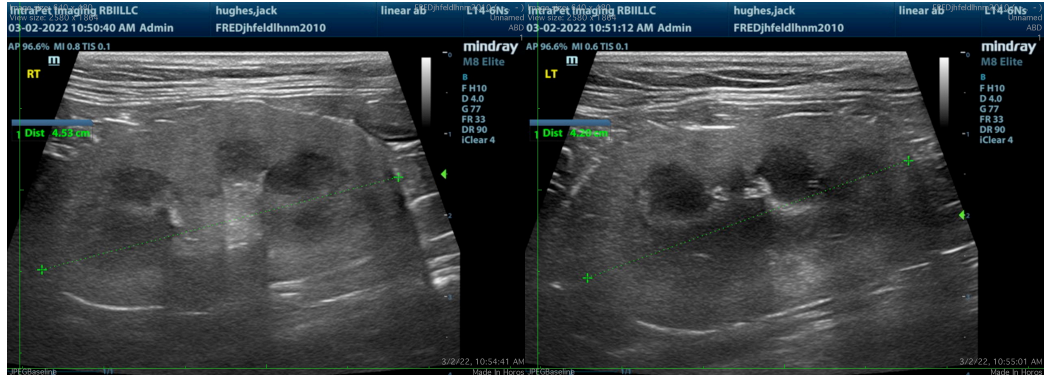
Given the weight loss and ultrasound changes, recommendations include a T4 and free T4 if not recently evaluated, as well as a gastrointestinal panel to include TLI, PLI, folate and cobalamin to Texas A&M GI laboratory for further investigation of gastrointestinal and pancreatic function.

Given the diffuse changes including bowel, nodes, spleen and liver, infiltrative neoplasia has to be considered, and a fine needle aspirate of the spleen, liver nodule, and enlarged mesenteric lymph nodes (if possible and if patient's coagulation status is appropriate) could be considered. If round cell neoplasia is not diagnosed via cytology, biopsies of the gastrointestinal tract (being sure to include the ileum) may be necessary to definitively diagnose the underlying infiltrative process and direct appropriate management.

If further diagnostics are not desired, empirical therapy with a diet change to a novel or hydrolyzed protein diet, cobalamin supplementation, and empirical Prednisolone could be considered, if thyroid status is normal.







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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