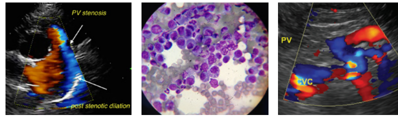


DATE
3/2/22

PATIENT
Bogart Rodriguez

SPECIES
Canine

BREED
Maltese

SEX
Neutered Male

AGE
2016

WEIGHT
11.5 Pounds

INTERPRETED BY
Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY
Stephanie Pearce
RDCS, RVT

HOSPITAL NAME
Northwind AH

REFERRING VET
Dr. Cross

INVOICE
35849

PRESENTING CLINICAL SIGNS

P seen at Pet Er 12/29/21 for lethargy and weakness. P diagnosed w/ IMHA and treatment started. P has weekly PCV checks which PCV was between 35-40. P recently developed a tense abdomen on wuick scan reveals enlarged liver. P now lethargic.

Current Medications: Cyclosporine 25mg- 1 BID, Clopidogrel 75mg- ½ SID.
Lab Results: See attached.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

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.

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

The right kidney is normal in size (4.99 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.

The left kidney is normal in size (4.61 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.

Adrenal Glands
The right adrenal gland is normal in size (1.22 cm long x 0.61 cm at the cranial pole and 0.57 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (1.22 cm long x 0.39 cm at the cranial pole and 0.36 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

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.

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. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

GB is moderately distended with anechoic bile and gravity dependent echogenic sediment. Some debris appears mineral in nature. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

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 mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is 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. There is mildly hyperechoic foci throughout the duodenal mucosa.

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 hypoechoic to surrounding tissue. The visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is mildly hyperreactive mesentery and fat.

Free Abdomen

There is a scant amount of anechoic free fluid primarily in the cranial abdomen. There is no apparent lymphadenopathy.

PRIMARY FINDINGS

- Hyperechoic hepatomegaly canine – most consistent with benign steroid (endocrine) hepatopathy or reactive or idiopathic hepatopathy. Infiltrative neoplasia such as round cell neoplasia is also possible, but considered less likely.
- Cholecystic debris/sand/mineral suggestive of possible cholangitis, given the reported abdominal discomfort and laboratory changes.
- Mild acute pancreatits, possibly acute on chronic pancreatitis is suspected.
- Scant amount of anechoic free fluid in the abdomen – likely associated with pancreatitis and cholangitis.

SECONDARY FINDINGS

- Mildly hyperechoic duodenal mucosa – Rule outs include normal variant versus this finding has been associated with non-specific inflammatory bowel disease and should be interpreted in combination with the gastrointestinal signs including diarrhea, weight loss, etc.

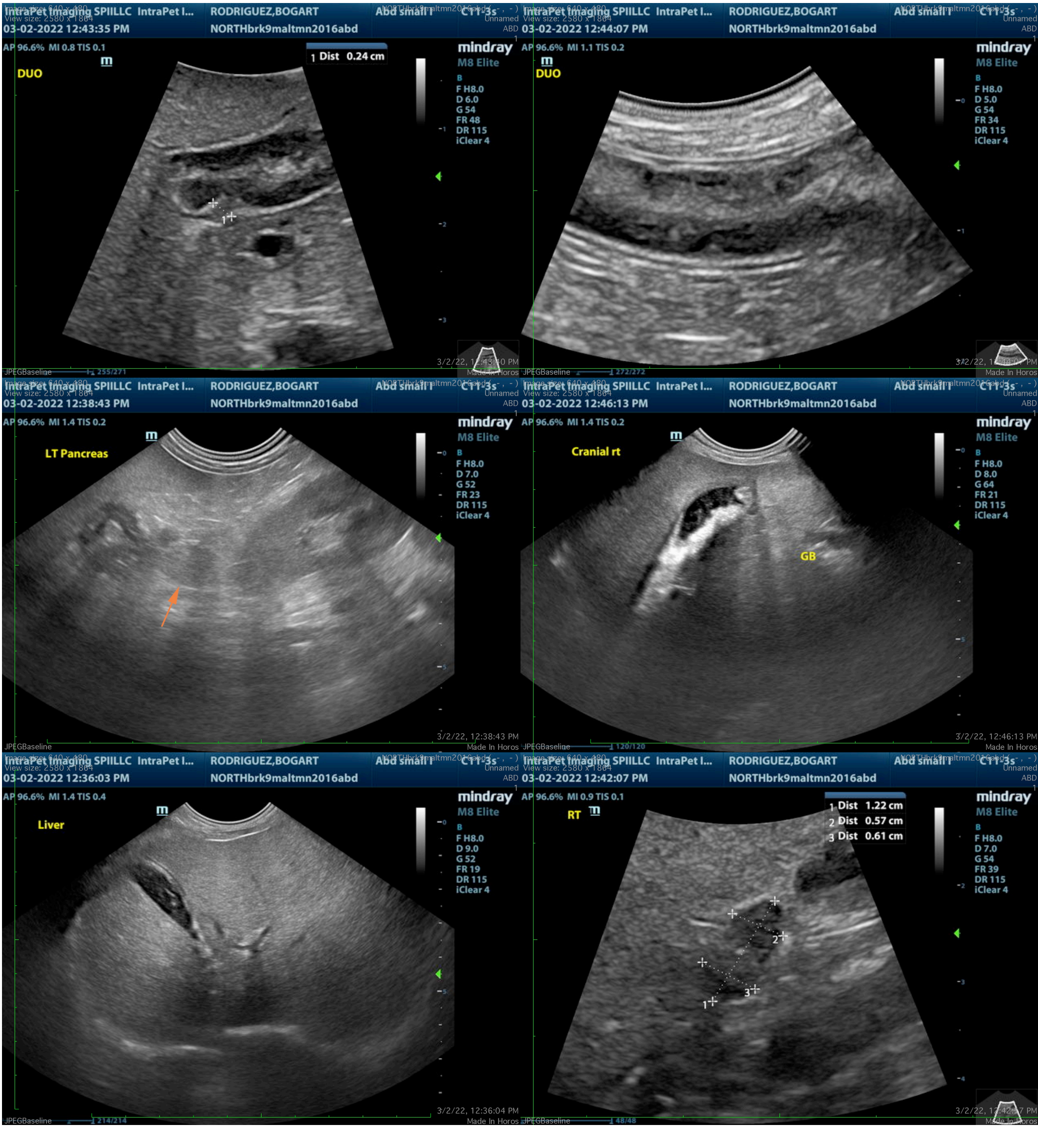
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

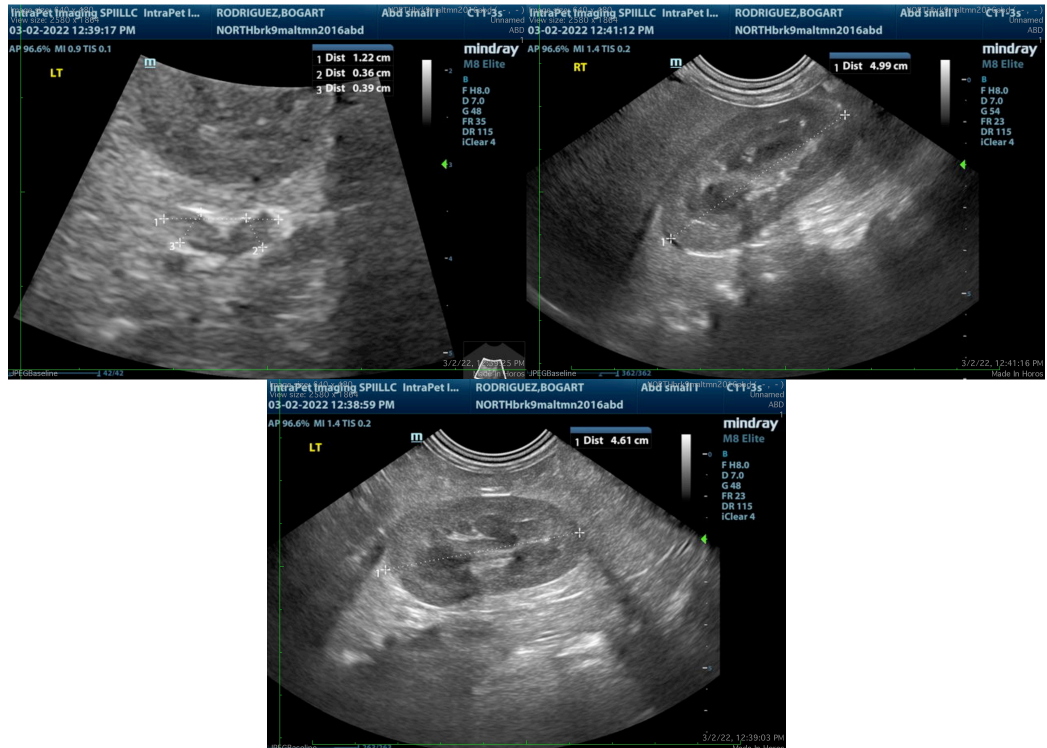
This patient's acute clinical signs and laboratory changes are suspected to be secondary to pancreatitis +/- concurrent cholangitis, as well as a possible reactive hepatopathy. Recommendations include a fine needle aspirate of the liver if patient's coagulation status is appropriate, as well as testing for Leptospirosis to rule out other causes of an enlarged, hyperechoic liver.

Therapeutic recommendations include tapering of steroids if this patient is on steroids for the reported IMHA, as well as supportive medical management of pancreatitis and cholangitis with antiemetics, gastroprotectants, appetite simulants if necessary, pain management, and broad-spectrum antibiotics, as well

as potentially IV fluids, especially if this patient and vomiting and/or not eating well. Ursodiol and Denamarin could both be considered as well once the patient is eating.

Clinical pancreatitis can be present with a relatively unremarkable ultrasound, so that combined with the mildly hyperechoic duodenal mucosa also warranted a gastrointestinal malabsorption panel including TLI, PLI, folate and cobalamin to Texas A&M GI laboratory for further assessment of gastrointestinal and pancreatic function.





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.

Beth Johnson, DVM, DACVIM
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