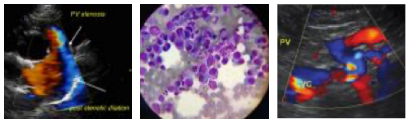
IMAGING PERFORMED BY

IntraPet.com



SonoPath
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DATE

11,9.2022

PATIENT

Marv Ferruzzi

SPECIES

Canine

BREED

Boston Terrier

SEX

Neutered Male

AGE

26.8lbs

WEIGHT

4/2/2010

INTERPRETED BY

Andrea Nicastro, DMV, Diplomate DACVIM (Small Animal Internal Medicine)

HOSPITAL NAME

Northwind Animal Hospital

REFERRING VET

Dr. Repsher

INVOICE

11992

PRESENTING CLINICAL SIGNS

O has noticed increasing episodes of agitation when p starts panting heavily, pacing and occasionally vomiting (the vomiting happens after p eats).

Current Medications: filled Gabapentin to help w/pan and mild calming 100mg BID as needed.
Lab Results: See attached.
ALT 209. ALP 504. GGT 16. USG 1.043. 2+ proteinuria. Inactive sediment. Normal T4.
Radiographs: liver subjectively large on radiographs, lungs appear clear but there is a lot of age related changes and some "noise" since p was panting
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Stephanie Warga RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is mildly to moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is normal in size (0.80 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal size (5.28 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (5.24 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is enlarged (0.81 cm at cranial pole) (0.90 cm at caudal pole) (2.33 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is mildly enlarged (1.08 cm at cranial pole) (0.75 cm at caudal pole) (2.52 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.66 cm in width at the level of the hilus) with a normal capsular contour. The parenchyma is subtly mottled in appearance. A 1.09 x 0.63 cm multiseptated cystic nodule, surrounded by a hyperechoic rim is observed at the medial aspect. In addition, a 1.21 cm ill-defined nodule/area is observed at the craniolateral aspect. Splenic vasculature is normal.

Liver
The liver is subjectively enlarged with swollen peripheral contours. The parenchyma isoechoic relative to the spleen and diffusely heterogenous in appearance, with several, small, ill-defined hyperechoic nodules/areas. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1: 1.

The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of echogenic to mineralized, mostly gravity dependent debris/sludge, +/- tiny choleliths, are observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal
The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

Pancreas
The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely hyperechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Free Abdomen
The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The **abdominal lymph nodes** are normal/not visible.

Thorax
A brief visualized of the thorax reveals no obvious evidence of pleural or pericardial effusion. There is no evidence of nodules or masses.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Nonspecific diffuse hepatopathy. Differentials include inflammatory disease (i.e., chronic hepatitis, bacterial cholangiohepatitis), hepatotoxicity, Leptospirosis, other hepatopathy, +/- concurrent benign age-related change (i.e., regenerative nodular hyperplasia and/or vacuolar hepatopathy).
- Mineralized gall bladder debris, +/- tiny choleliths - incidental

Secondary Findings

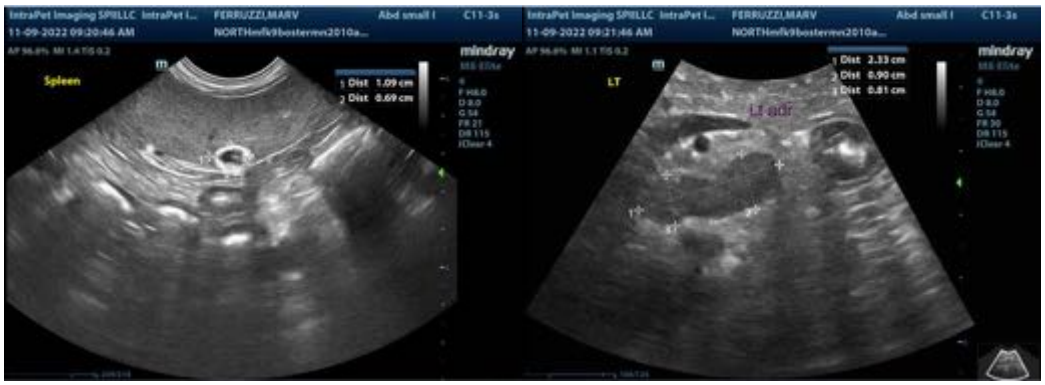
- Mild, chronic, degenerative renal changes
- The bilateral adrenomegaly is most consistent with mild hyperplastic change.
- Age-related pancreatic remodeling with possible fibrosis. Mild, chronic pancreatitis may also be present, particularly if the patient exhibits pain on cranial abdominal palpation.
- The cystic splenic nodule could be consistent with a benign process (i.e., cystic myelolipoma). Alternatively, an emerging tumor may be warranted.

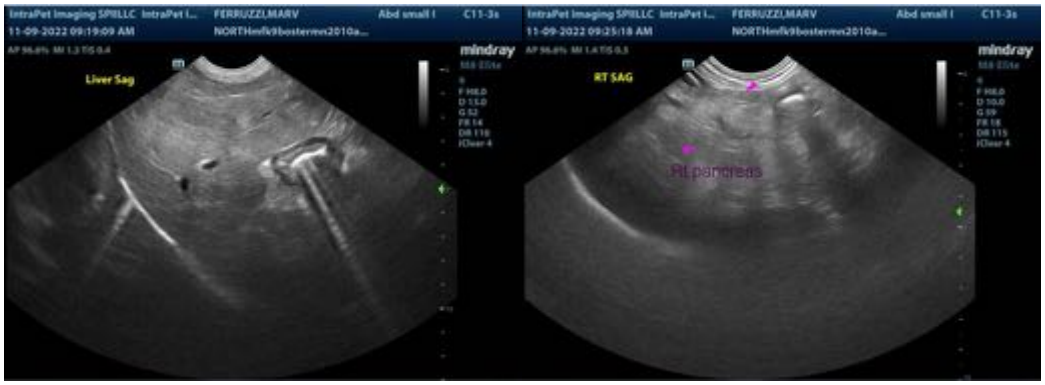
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

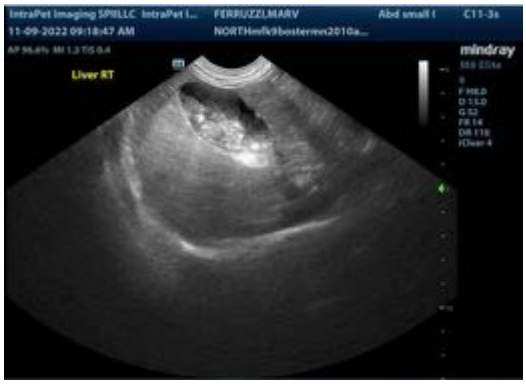
To further evaluate whether the patient's clinical signs are related to an underlying hepatopathy, versus a primary neurologic disease, versus other, consider the following:

1. Pre-and postprandial serum bile acids
2. +/- blood ammonia level
3. Leptospirosis testing (i.e., blood and urine PCR, serology)
4. Hepatic tissue sampling (i.e., fine-needle aspirate or biopsy) can also be considered if the patient's clinical condition is stabilized.
5. Baseline blood pressure measurement to assess for systemic hypertension, which can predispose patients to cerebrovascular accidents.
6. Depending on the results of the above diagnostics, consultation with a board-certified neurologist +/- a brain MRI, +/- a CFS Tap may be warranted.

Regarding the cystic splenic nodule, consider a recheck ultrasound in one month to assess for progression.







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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