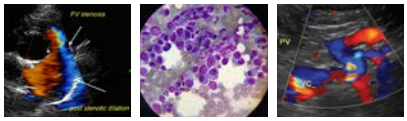
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

DATE

7/11/23

PATIENT

Hunter Schweers

SPECIES

Canine

BREED

Maltese

SEX

Intact Male

AGE

11/14/08

WEIGHT

9 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

HOSPITAL NAME

Chadwell AH

REFERRING VET

Dr. Mengers

INVOICE

43900

PRESENTING CLINICAL SIGNS

Presenting for vomiting and diarrhea x 1 day and weight loss over the past couple of months. Significantly elevated ALP, GGT, and ALT. Hx of Addison's dz (well-controlled on fludricortisone). Severe muscle wasting, potbellied appearance, grade III HM.

Current Medications: fludricortisone - 0.1mg BID, dasaquin adv - 1/2 tab PO SID
Lab Results: ALP > 993, GGT 115, ALT 539, Na:K 43, mild stress leukogram
Radiographs: Significant gas in colon, overall hazy appearance to abdomen.
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 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 is normal in size for an intact male. Parenchyma is diffusely homogenous and relatively hyperechoic. Normal distinct margins and symmetrical bilobed shape are maintained.

Kidneys are overall normal in size 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 cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The left kidney measures 4.72 cm. The right kidney measures 4.47 cm.

Adrenal Glands

Adrenal glands are small (flattened contour). Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The left adrenal gland measures 0.40 cm at the cranial pole and 0.37 cm at the caudal pole. The right adrenal gland measures 0.43 cm at the cranial pole and 0.31 cm at the caudal pole.

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

The liver is subjectively normal in size with a slightly undulating or scalloped capsular contour or margins. Patchy, ill-defined areas of increased echogenicity are present with reduced visualization of vessels. The remaining parenchyma is mottled by multifocal discrete hypoechoic nodules of varying sizes, “moth eaten”, between the patchy, ill-defined echogenic areas. Visible vasculature and biliary tree appear normal without distention or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. 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 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

A moderate amount of free anechoic fluid is noted in these images.

There is no apparent lymphadenopathy noted in these images.

Both testicles are visualized without evident testicular pathology.

PRIMARY FINDINGS

- The nodular “moth-eaten” appearance of the liver is concerning for an infiltrative process such as round cell neoplasia or even metastatic neoplasia versus other. Benign nodular hyperplasia cannot be ruled out but is considered less likely. Having said this, this appearance is in between irregular echogenic areas, consistent with possible fibrosis, scarring, or early cirrhosis. Some of these changes could be from resolved past inflammatory episodes. This combination of findings should be interpreted in combination with additional information including sampling, bile acids, etc. (see recommendations).

- The free fluid could be secondary to portal hypertension, given the above scenario, versus other, decreased venous return, increased arterial pressure (i.e., cardiac disease), versus paraneoplastic effusion, vasculitis, etc. Fluid secondary to decreased oncotic pressure is also possible, however hypoalbuminemia was not reported.

- Mild gallbladder debris - 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. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

SECONDARY FINDINGS

- 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.

- Age related kidney changes.
- Flat adrenal glands – consistent with this patient's hypoadrenocorticism.

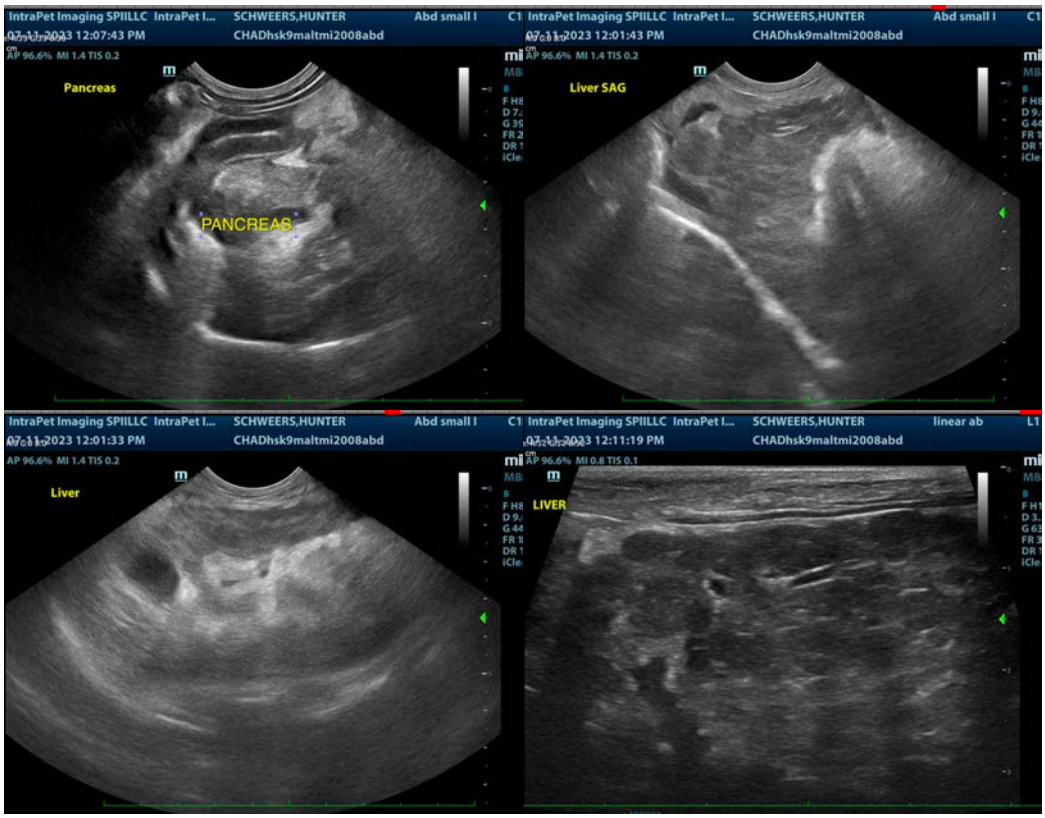
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Bile acids are recommended for further evaluation of liver function.

A fine needle aspirate of the liver is recommended if patient's coagulation status is appropriate.

Additionally, sampling of the free abdominal fluid is recommended for cytology. Pending results, further evaluation of cardiac function via an echocardiogram could be considered.

In the meantime, while awaiting results, supportive/symptomatic medical management of patient's clinical signs is recommended in the form of antiemetics, gastroprotectants, potentially probiotic such as Visbiome or Proviable, appetite stimulants, etc.




IntraPet Imaging SPIILLC IntraPet I... SCHWEERS,HUNTER Abd small I C1
CHADhsk9maltmi2008abd
Pancreas
1 Dist 1.20 cm
IntraPet Imaging SPIILLC IntraPet I... SCHWEERS,HUNTER Abd small I C1
CHADhsk9maltmi2008abd
RT
1 Dist 1.18 cm
2 Dist 0.31 cm
3 Dist 0.43 cm
IntraPet Imaging SPIILLC IntraPet I... SCHWEERS,HUNTER Abd small I C1
CHADhsk9maltmi2008abd
RT
1 Dist 4.47 cm
IntraPet Imaging SPIILLC IntraPet I... SCHWEERS,HUNTER Abd small I C1
CHADhsk9maltmi2008abd
prostate
1 Dist 1.58 cm
IntraPet Imaging SPIILLC IntraPet I... SCHWEERS,HUNTER Abd small I C1
CHADhsk9maltmi2008abd
LT
1 Dist 1.35 cm
2 Dist 0.37 cm
3 Dist 0.40 cm
IntraPet Imaging SPIILLC IntraPet I... SCHWEERS,HUNTER Abd small I C1
CHADhsk9maltmi2008abd
LT
1 Dist 4.72 cm
IntraPet Imaging SPIILLC IntraPet I... SCHWEERS,HUNTER Abd small I C1
CHADhsk9maltmi2008abd
Liver

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
info@sonopath.com