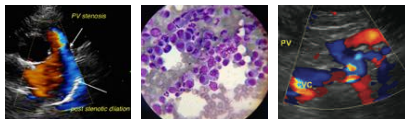
IMAGING PERFORMED BY

IntraPet.com



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

DATE
8/17/21

PATIENT
TIgger Peters

SPECIES
Canine

BREED
Beagle

SEX
Neutered male

AGE
2007

WEIGHT
38 lbs

INTERPRETED BY
Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

HOSPITAL NAME
Chadwell AH

REFERRING VET
Dr. Schaupp

INVOICE
91305

PRESENTING CLINICAL SIGNS

Pet originally hospitalized for gastroenteritis, while in the hospital exhibited sudden onset intermittent hematuria. Pet was on IV fluids and antibiotics while in the hospital. Has history of arthritis, hypothyroidism (under control), suspect for Cushing's disease. Test pending.
Current Medications: Cerenia - 60 mg QD, Baytril - 68 mg, 1/2 tablet BID, Clavamox - 250 mg, 1 BID, Proviable - 1 cap QD,
Famotidine - 10 mg, 1/2 tab QD.
Lab Results: Alkaline phosphatase- 468
Radiographs: hepatomegaly. Barium swallow done due to abnormal stomach emptying time.
Date of Previous IntraPet Ultrasound: No previous
Sedation: utilized for AUS
Stat Report: not requested

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is significantly distended with a mixed echogenic, rounded mass effect that measured 4.4 x 4.39 cm. A direct connection of the mass to the bladder wall is not visualized and color flow shows minimal vascularity. Possible differentials include a large clot, smaller mass effect with a large clot component or a large mass effect with a relatively small attachment. All areas of visualized bladder wall appear normal. The trigone, ureteral papilla, and visible urethra to a depth of 2.0 cm appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The prostate is normal in size and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal size (5.33 cm), yet was irregular in shape. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is mild pyelectasia measuring 0.12 cm. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal. There are at least two large, cortical cysts present measuring 0.7 cm and 1.09 cm.

The right kidney has an irregular shape with small cortical cysts. The right kidney is normal in size (5.56 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is large at 1.0 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is large in size measured 1.15 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size The spleen echotexture is heterogenous and mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears

normal. A 2.0 cm, hyperechoic nodule is visualized and does not appear to be deforming the capsule. A myelolipoma is most likely.

Liver

The liver is subjectively large in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There are several, ill-defined, hyperechoic nodules through the liver. The largest and most discrete measured 2.5 cm. These irregularities do not deform the hepatic margins at all and most likely favor a benign process. The gallbladder lumen is moderately distended. The wall of the gallbladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is prominent and hypoechoic as compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Large mass effect within the urinary bladder. The mass is rounded. An obvious attachment is not visualized. The appearance favors a clot effect or mass effect with a partial clot effect as discrete vascularity cannot be visualized.

- Bilateral adrenomegaly. The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended.

- Large heterogenous liver. The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis,

extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

- Large amount of gallbladder sludge. The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting. Consider starting Ursodiol.

- Decreased corticomedullary distinction in both kidneys with cortical cysts. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.

SECONDARY FINDINGS:

- Hyperechoic nodule in the spleen. The appearance favors a benign process such as a myelolipoma, but cytology or histopathology would be necessary to know for sure.

- Mildly prominent, hypoechoic pancreas. The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

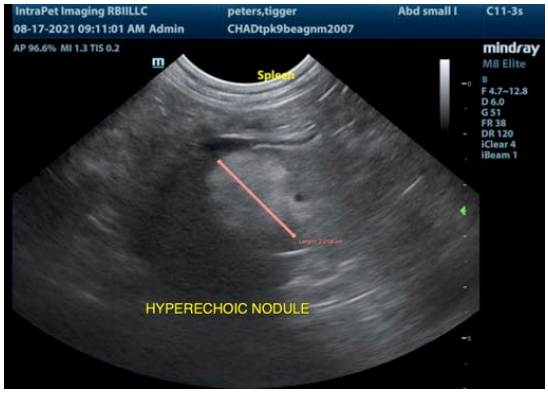
There is a very large mass effect in the bladder occupying at least 80% of the urinary bladder lumen. Direct attachment spot cannot be visualized. Vascularity appears low. This lesion may be a clot, smaller mass with a large clot on it or a large, somewhat avascular mass. Options moving forward include confirming normal coagulation parameters, treating for a urinary tract infection, obtaining a free catch urinalysis to look for evidence of infection, neoplastic cells, etc. If the patient is comfortable a recheck ultrasound is recommended in 1-2 weeks to see if the mass in the urinary bladder has changed at all. More aggressive options would include either cystoscopy or surgical biopsy. You can also consider a BRAF urine test. If it is positive then my suspicion for underlying neoplasia would be higher. If negative then this is not diagnostic and additional testing would need to be performed.

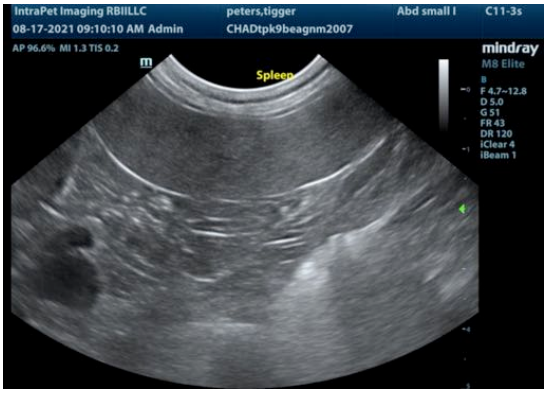
I am suspicious for Cushing's disease in this patient based on the bilateral adrenomegaly and the liver changes observed. Consider adrenal function testing when the patient is not sick and is not hospitalized as this can very commonly cause false positive results. Additionally consider starting Ursodiol to try and reduce the risk of mucocele development and continue to monitor liver values and the appearance of gallbladder on ultrasound.

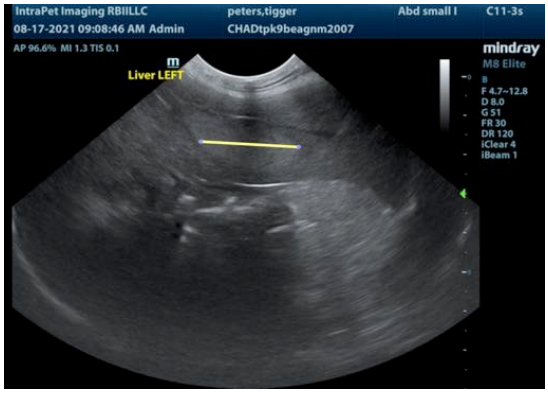
Both kidneys are somewhat irregular and cystic. This is likely consistent with age related change. I recommend blood pressure evaluation, urinalysis and culture.

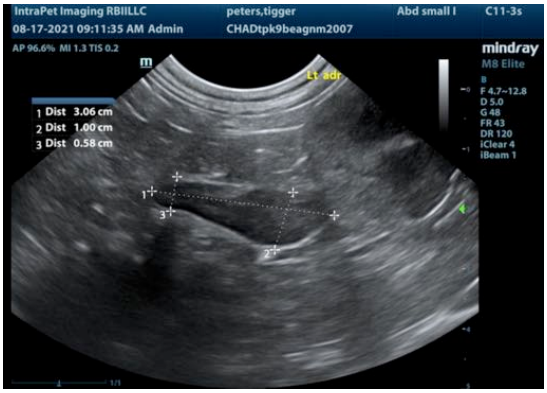
An obvious cause for the recent gastrointestinal symptoms was not clearly identified. The pancreas appears somewhat prominent. If the symptoms persist consider a gastrointestinal panel and quantitative PLI, B12 and folate.

The appearance of the splenic lesion favors a benign process. Consider a FNA or continue monitoring with ultrasound.


IntraPet Imaging RBIILLC
peters,tigger
Abd small I
C11-3s
08-17-2021 09:11:01 AM Admin
CHADtpk9beagnm2007
AP 96.6% MI 1.3 TIS 0.2
mindray
M8 Elite
Spleen
HYPERECHOIC NODULE

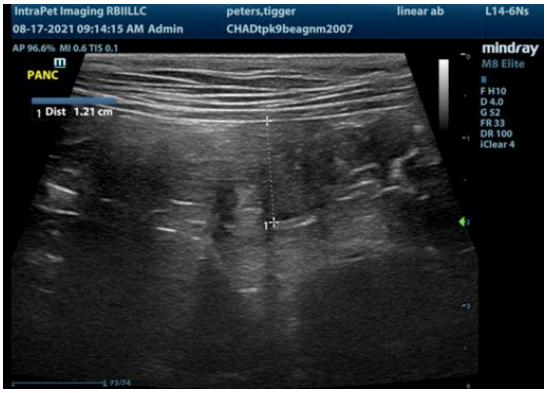

IntraPet Imaging RBIILLC
peters,tigger
Abd small I
C11-3s
08-17-2021 09:10:10 AM Admin
CHADtpk9beagnm2007
AP 96.6% MI 1.3 TIS 0.2
mindray
M8 Elite
Spleen

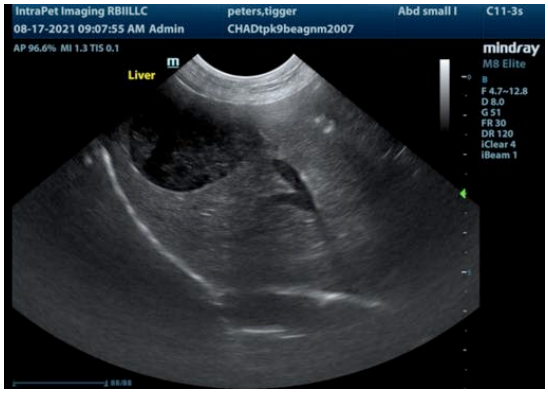

IntraPet Imaging RBIILLC
peters,tigger
Abd small I
C11-3s
08-17-2021 09:08:46 AM Admin
CHADtpk9beagnm2007
AP 96.6% MI 1.3 TIS 0.1
mindray
M8 Elite
Liver LEFT

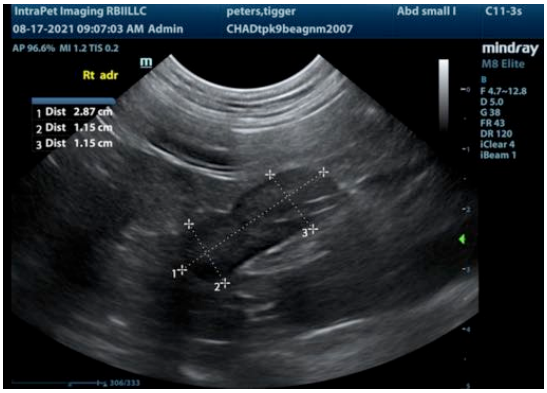

IntraPet Imaging RBIILLC
peters,tigger
Abd small I
C11-3s
08-17-2021 09:11:35 AM Admin
CHADtpk9beagnm2007
AP 96.6% MI 1.3 TIS 0.2
mindray
M8 Elite
Lt adr
1 Dist 3.06 cm
2 Dist 1.00 cm
3 Dist 0.58 cm


IntraPet Imaging RBIILLC
peters,tigger
Abd small I
C11-3s
08-17-2021 09:11:25 AM Admin
CHADtpk9beagnm2007
AP 96.6% MI 1.3 TIS 0.2
mindray
M8 Elite
Lt Kidney
1 Dist 5.33 cm


IntraPet Imaging RBIILLC
peters,tigger
linear ab
L14-6Ns
08-17-2021 09:14:53 AM Admin
CHADtpk9beagnm2007
AP 96.6% MI 0.7 TIS 0.2
mindray
M8 Elite
RT
1 Dist 5.56 cm







The information and recommendations provided are based on the images presented by the referring veterinarian. 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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)
kathleen.sennello@sonopath.com