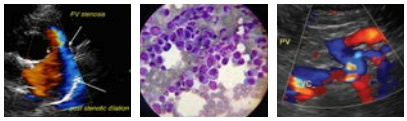
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
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DATE

5/25/22

PATIENT

Cocoa Hutter

SPECIES

Canine

BREED

Dachshund

SEX

Intact Male

AGE

9/14/09

WEIGHT

15 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Eldersburg VH

REFERRING VET

Dr. James

INVOICE

37930

PRESENTING CLINICAL SIGNS

Pt presented today for lethargy & vomiting. pt has vomited yellow bile 3x since yesterday morning (5/22). has not eaten anything since Friday evening (5/20). did not drink anything at all on Saturday (5/21), but did drink very small amounts yesterday (5/22) & this morning. pt has been lethargic since Saturday (5/21). no d/c/s. has not had any bm since Saturday morning (5/21). o doesn't believe pt has eaten or gotten into anything he shouldn't have, o says that's not something pt has ever done before. Pt did eat a small amount of grass on Wednesday (5/18) last week though.

Current Medications: Only preventatives.
Lab Results: cbc/chem17/lytes= creat=3.0 H, bun 71 H, alkp= 292 H
cPL-normal.
Radiographs: Splenomegaly, renomegaly?,; 3cm radiopaque density in fundic portion of stomach L lat view.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Requested by DVM.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris. In the dependent portion of the urinary bladder and in the area of the trigone, Proximal urethra and ureteral papillae, the dependent portion of the urinary bladder wall appears slightly thickened, measuring approximately 0.37 cm. Some of this thickening is likely due to dependent debris. Findings are most consistent bacterial cystitis, although thickening secondary to a mass lesion cannot be 100% excluded.

The prostate is large in size (2.1 cm in height in the sagittal view) but has a regular shape with smooth external margins. The parenchyma is heterogenous and hyperechoic but no discrete focal lesions are present. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (5.31 cm) with pinpoint non-obstructive nephroliths and perinephric inflammation visualized. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.44 cm) with pinpoint non-obstructive nephroliths and perinephric inflammation visualized. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio.. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.74 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 normal in size measuring 0.81 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, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

The liver is large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is mildly heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder appears prominent and slightly thickened, measuring 0.23 cm. It has a smooth mucosal surface. Findings are most consistent with edema of the gallbladder wall. 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 right pancreas is prominent and mottled 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

There is a moderate amount of free abdominal fluid. No lymphadenopathy noted. The mesentery is hyperechoic around the kidneys in the cranial abdomen.

Other

A small to moderate amount of pleural effusion is evident cranial to the diaphragm.

Both testicles are visualized and are within normal limits.

ULTRASONOGRAPHIC FINDINGS

- Echogenic debris and mild dependent wall thickening of the urinary bladder – findings are most consistent with bacterial cystitis, but neoplastic change cannot be excluded as a possibility.

- Large, heterogeneous, hyperechoic prostate – findings are most consistent with benign prostatic hypertrophy +/- prostatitis less likely prostatic neoplasia. Recommend urinalysis and culture.

- Decreased corticomedullary distinction in both kidneys with non-obstructive nephroliths and perinephric inflammation – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. There is inflammation

surrounding both kidneys. This can be seen with acute renal failure, Leptospirosis, pyelonephritis, etc.

- Prominent, mottled right side of the pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

- Borderline large, heterogeneous 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.

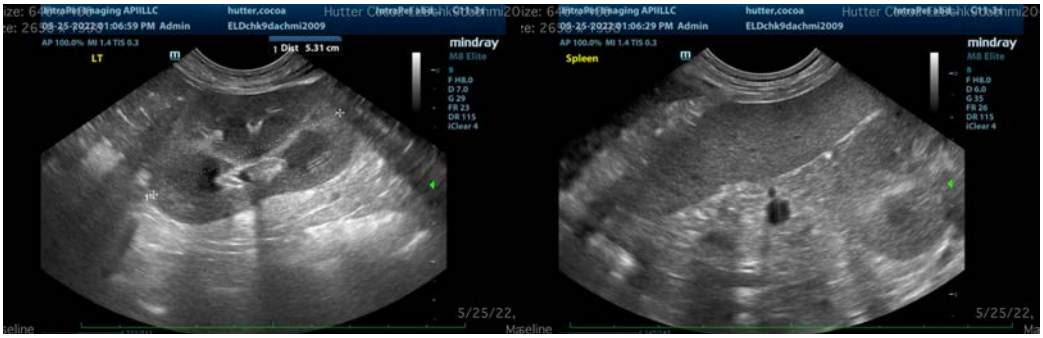
- Hypoechoic, mildly thickened gallbladder wall – findings are most consistent with gallbladder edema.

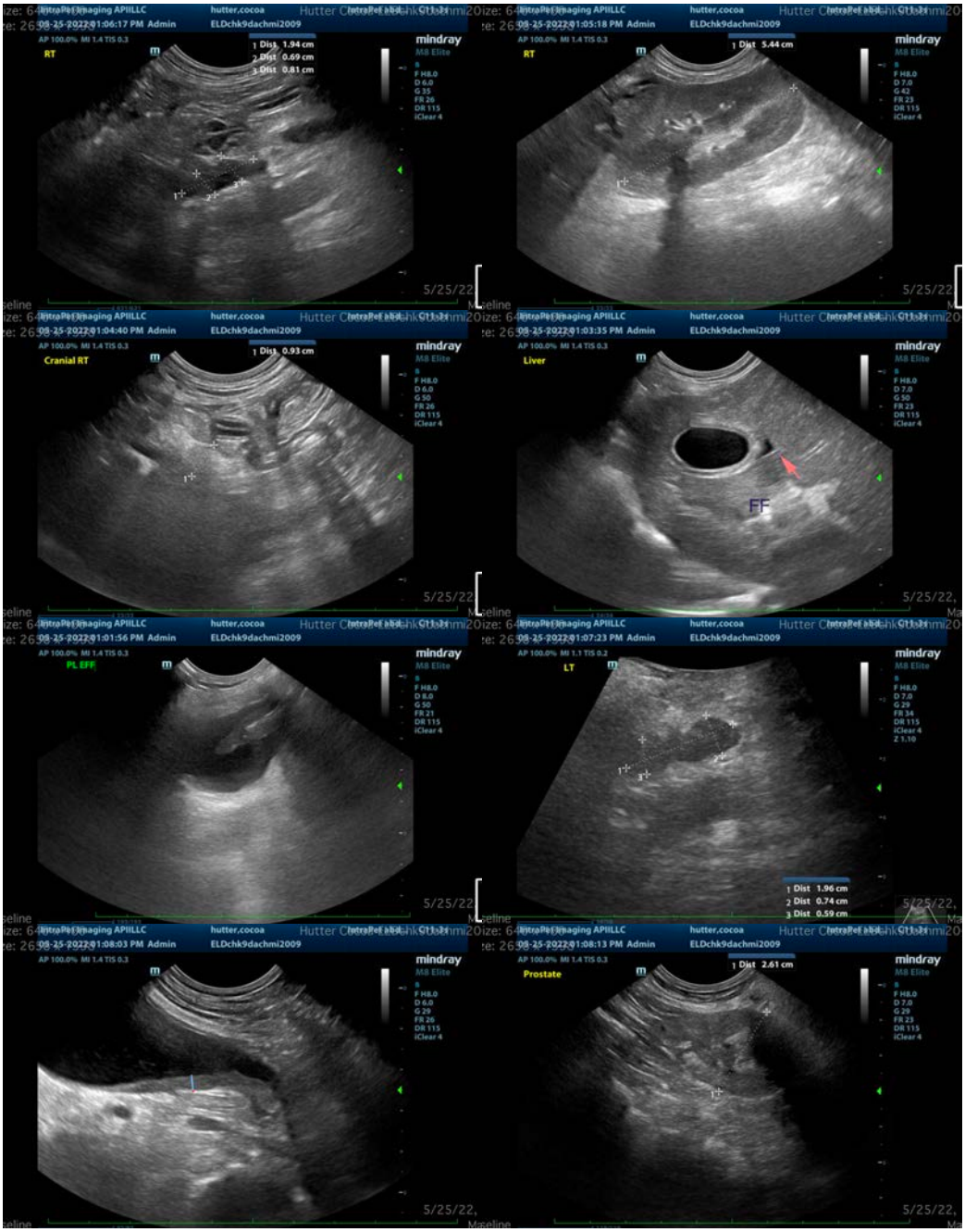
- Pleural and peritoneal effusion – This could be secondary to fluid overload, hypoalbuminemia, vasculitis, metastatic neoplasia, etc.

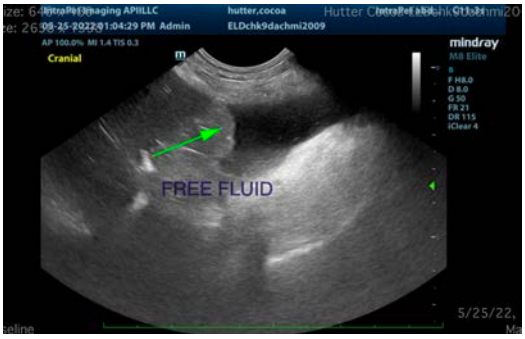
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The appearance of the kidneys with surrounding inflammation, the abnormal prostate, the debris visualized within the urinary bladder, and the free pleural and peritoneal fluid make me concerned for possible acute renal failure secondary to severe dehydration and possible pyelonephritis(?). Recommend urinalysis, culture, blood pressure evaluation, and an indwelling urinary catheter to monitor fluid ins and outs along with frequent reevaluation of bloodwork and electrolytes to assess hydration status, urine output, etc. Additionally, body weight should be monitored closely, and if any respiratory difficulty is noted, consider a therapeutic thoracocentesis.

Based on urine output with a closed system you can assess if the kidneys are working, and if the azotemia is prerenal or not. Recommend starting broad-spectrum IV antibiotics while waiting for cultures, as well as testing for Leptospirosis and evaluation for any nephrotoxic medications or exposures. At this time, the renal values are only mildly elevated, so other possibilities exist, but my initial biggest concern is renal function.




mindray
RT
Cranial RT
Liver
FF
PL EFF
LT
Prostate



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.

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