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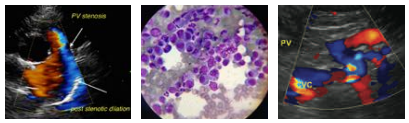

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DATE
2/15/22

PATIENT
Mambo Illiano

SPECIES
Canine

BREED
Bearded Collie

SEX
Neutered male

AGE
3/19/07

WEIGHT
63.8 lbs

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

HOSPITAL NAME
Animal Emergency Hospital

REFERRING VET
Dr. Nacke Horney

INVOICE
96073

PRESENTING CLINICAL SIGNS

Had episode of pancreatitis back in July - afterwards owner switched to Home Vets Have had BW repeated several times to monitor for improvements - Sept 8th seem improved Last week started having a decreased appetite Friday AM: vomited that smelled acidic - rdvm started on omeprazole for potential acid reflux and cerenia as needed Sat: ate some, BM mushy to loose Sunday AM: vomited that had acidic smell again and decreased appetite, owner started cerenia Owne has been feeding hamburger or fish and rice or noodles - ate beef and rice this AM but owner noted that when feeding will occasionally have to put in mouth Stool seemed more formed yesterday after new meds added by rdvm Owner noted that floppy skin is normal fo him since weight loss - laying around how he does is hospital seems like a stress response for him Hx of hip replacement ay 2 year old - has been painful on palpation since - Owner noted she would like a urinary catheter placed for his comfort Presented to rdvm: - BW: BUN 63, CREA 2.4, Alb 2.4, ALT 131, GGT 12, RBC 4.8, HCT 37, PLT 79 with no clumps seen, DGGR LIP 387 (0-107) - added on ondansetron metronidazole, and proviable Current meds: - Cerenia 60 mg tab - 1 tab q24 - last give 2/10 1215p - Omeprazole - last given 2/11 8a - Metronidazole - 250 mg tab - 1 tab PO q12 - last given 2/11 840a - Pepcid - last given 2/11 8a - Ondansetron 8 mg tab - 2 tab PO q12 - last given 2/11 8a. PE: moderate dehydration, mild dental tartar, Abdomen soft and not apparently painful on palpation, no obvious masses or foreign material palpable, Not willing to walk or stand, muscle wasting in the hind end, Scabbing at the right pelvis, SQ mass along ventrum, suspected generalized edema.
Current Medications: Proviable, Gabapentin, Maropitant, Clavamox, Ondasetron, Metronidazole, Pantoprazole, Entyce, Metoclopramide, Amp/Sulb.
Lab Results: UA_ Analyzer Note: Confirm all leukocyte results with microscopy. SediVue_Dx Analyzer Note: Confirm bacteria with one of the following: Image review SediVue Bacteria Confirmation Kit Air-dried, stained cytological preparation ('dry prep') Urine culture.
Date of Previous IntraPet Ultrasound: 7/20/21.
Sedation: Declined. Exam limited secondary to patient condition.
Stat Report: Not requested.
Imaging Performed By: Rachel Brilhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is minimally distended with anechoic urine. There is a Foley catheter visualized in the bladder lumen. The bladder wall appears somewhat thickened and irregular, but I suspect this is artifact secondary to lack of urine distension. No masses or calculi are visualized, but evaluation of the urinary bladder is hindered by the placement of the urinary catheter.

The prostate is normal in size (1.2 cm) 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 shape and size (6.14 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. Pyelectasia was noted and measured 0.3 cm. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.49 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. Pyelectasia was noted and measured 0.32 cm. A 0.84 cm, non-obstructive nephrolith is noted. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands
The left adrenal gland is borderline large in size measuring 1.1 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. The appearance is somewhat irregular in that the parenchyma is somewhat heterogenous and mottled.

The right adrenal gland is normal/borderline large in size measuring 0.75 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. The appearance is somewhat irregular in that the parenchyma is somewhat heterogenous and mottled.

Spleen
The spleen is subjectively (normal or large) 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. There is a small, mixed, hypoechoic nodule in the parenchyma measuring 1.23 x 1.99 cm.

Liver
The liver is subjectively normal 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 is a 1.79 x 1.82 cm cyst evident in the right side of the liver. The gallbladder lumen is moderately distended. The wall of the gallbladder is not thickened and has a smooth mucosal surface. There is a large 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 (0.42 cm) and the jejunum measured as normal (0.32 cm). 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 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 scant amount of anechoic free fluid in the abdomen. There is no lymphadenomegaly. The omentum is of normal uniform echogenicity.

Heart

There is a scant amount of pleural effusion visualized cranial to the diaphragm. A brief view of the heart was submitted. No pericardial effusion was seen.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Decreased corticomedullary distinction in both kidneys with bilateral pyelectasia and a right-sided, non-obstructive nephrolith. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the both kidneys could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other. The hyperechoic mineralized foci observed at the corticomedullary junction of the right kidney is consistent with small, non-obstructive nephroliths. These changes are similar to those previously described 7 months ago.

- Mildly mottled spleen with hypoechoic nodule. There is a non-cavitated, hypoechoic splenic nodule visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.

- Heterogenous, irregular liver with parenchymal cyst. 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. The cyst appears stable as compared to the previous scan 7 months ago.

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

- Small volume of pleural and abdominal effusion.

SECONDARY FINDINGS:

- Foley catheter visualized in the urinary bladder.

- Borderline enlarged adrenal glands with mottled parenchyma. -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. This could be normal in an older large dog.

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

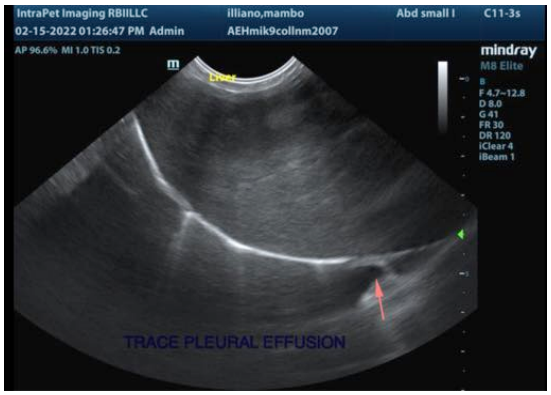
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

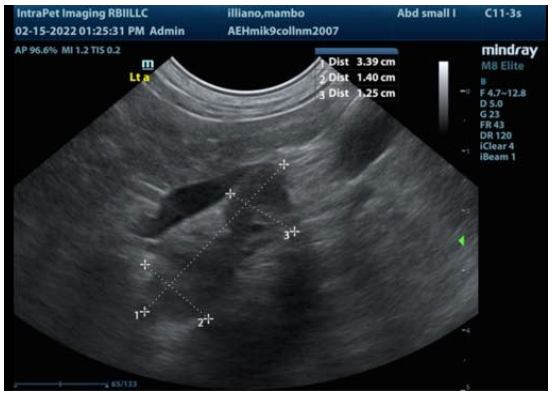
Today's scan appears relatively stable from the previous scan. There is a new, small, hypoechoic nodule visualized in the spleen and the gallbladder sludge is more prominent. Based on the history provided it appears that the liver values have worsened and the albumin has dropped. Consider evaluation for a protein losing nephropathy.

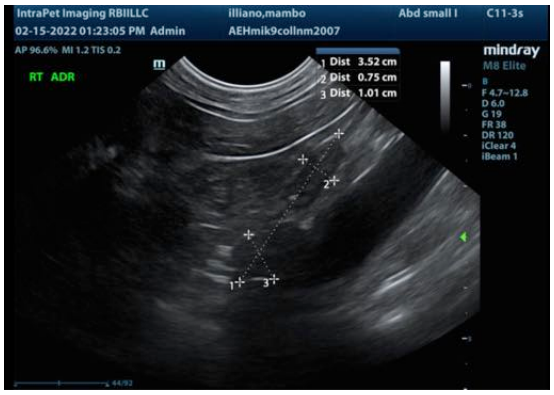
- Recommend urine protein to creatinine ratio
- Recommend urinalysis and culture
- Recommend blood pressure evaluation

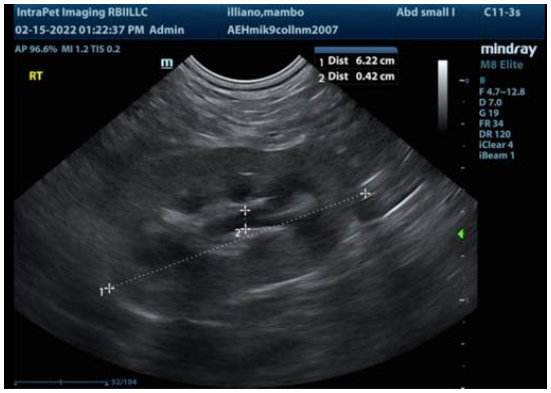
In my experience some dogs with proteinuria do not feel well despite having mild to moderate renal value elevations. I also wonder if this dog is fluid overloaded based on the effusion present. This could be an indicator that he is not handling and excreting fluids well particularly with the hypoalbuminemia present. Consider three view thoracic radiographs to look for concurrent intrathoracic disease and to look for pleural effusion.

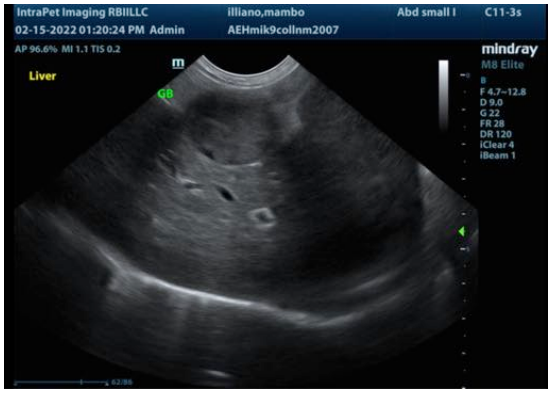
If proteinuria is not present you can consider a liver function test and a GI panel to Texas A&M (for a qualitative PLI, TLI, cobalamin and folate) to further evaluate for a possible hepatopathy or protein losing enteropathy as a cause for the low albumin levels.

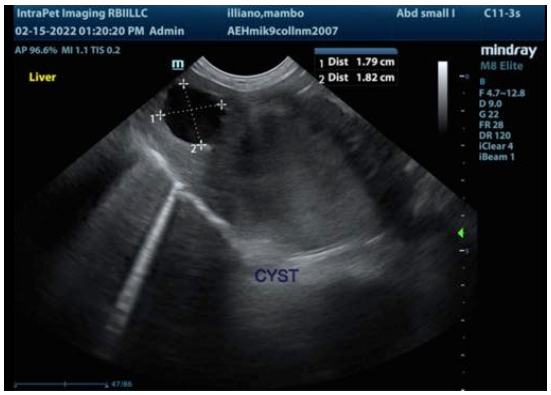


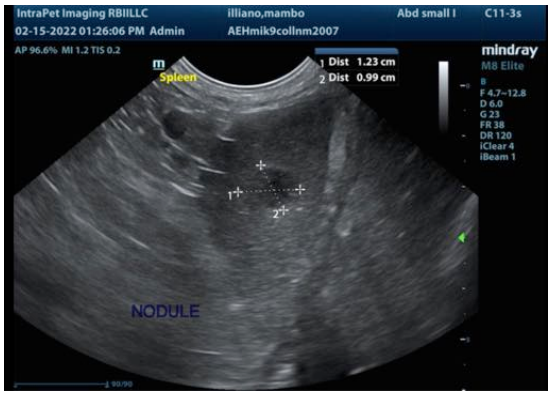


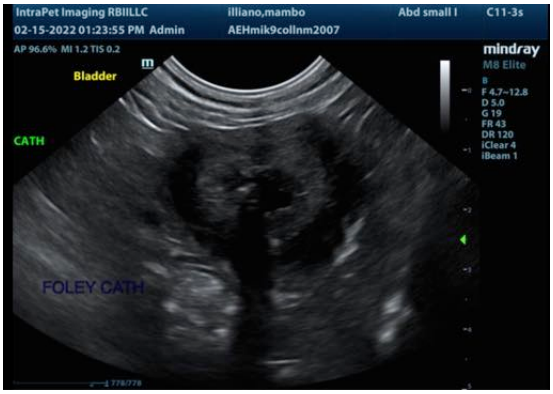


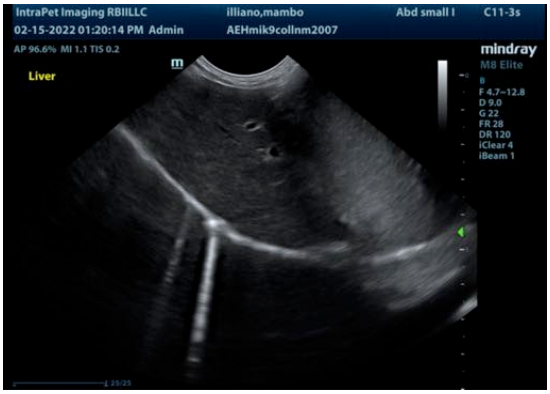












The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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