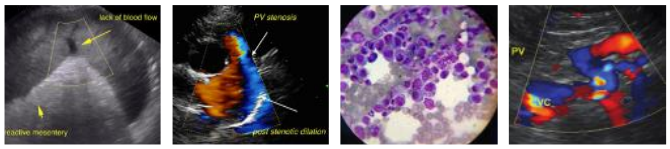
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Murphy Hope

SPECIES

Feline

BREED

DLH

SEX

Neutered Male

AGE

12 ½ Years

WEIGHT

5.08 kg

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Dr. Trudeau

HOSPITAL NAME

Petworks VH

REFERRING VET

Dr. Trudeau

INVOICE

16988

DATE

8/22/22

PRESENTING CLINICAL SIGNS

History: increasing SDMA WITHOUT marked changes in Crea/Urea/urinalysis; gradual weight loss; normal BP; reasonably managed hyperthyroid disease - on y/d

Abnormal PE/Chem/CBC/UA Results: Chem: SDMA 36; Crea - Low; Urea - normal TT4: 65 nmol/L (10-60) CBC : WNL

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with incidental suspended lipid in a cat, possibly combined with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are normal in size (left kidney measures 4.02 cm, right kidney measures 4.18 cm) with increased cortical echogenicity. Normal smooth peripheral margination and shape are maintained. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed. Infiltrative disease (infectious, neoplastic, etc.) or nephritis cannot be ruled out but is considered less likely.

Adrenal Glands

Left adrenal gland is normal in size (0.39 cm at cranial pole and 0.41 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is unable to be well visualized in these images.

Spleen

Spleen is subjectively large in size with normal smooth margins. Parenchyma is normal in echogenicity with a coarse/heterogenous echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

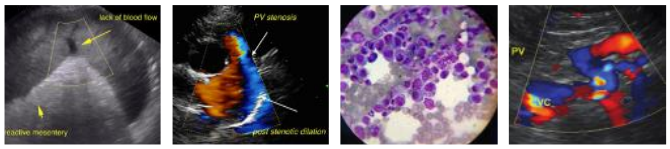
Liver

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.



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The visible small intestines are normal in wall thickness and layering. 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 and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

The mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail. No appreciable free fluid is noted in these images.

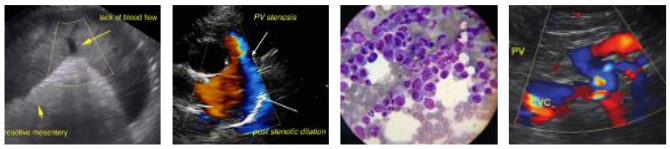
ULTRASONOGRAPHIC FINDINGS

- Hyperechoic hepatomegaly-This appearance is most consistent with benign hepatic lipidosis. Infiltrative disease such as amyloidosis or round cell neoplasia, such as mast cell tumor or less likely, lymphoma, is also possible.
- Coarse splenomegaly – can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia, amyloidosis (leave amyloidosis out if canine) as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.
- Reactive mesenteric lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely.
- Urinary bladder debris

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given this patients reported weight loss and mild mesenteric lymphadenopathy, further evaluation of the GI tract could be considered with a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function. Ultimately, however, given this patients reported thyroid level, the weight loss is likely secondary to hyperthyroidism. Tighter regulation of the hyperthyroidism could be considered with methimazole versus a Y/D diet if tolerated by the patient. However, an increased SDMA is suggestive of early/emerging chronic kidney disease, which could be exacerbated by tighter control of the hyperthyroidism. Therefore, balancing clinical signs of the hyperthyroidism (i.e., weight loss) with progression of the kidney disease, etc. needs to dictate treatment. For further assessment of the possible early or emerging kidney disease, urinalysis and, if indicated based on urinalysis results, urine culture is recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

Overall, recommendations for this patient are to regulate the hyperthyroidism more tightly, again possibly with a transition to methimazole versus the Y/D diet, if possible, followed by close monitoring



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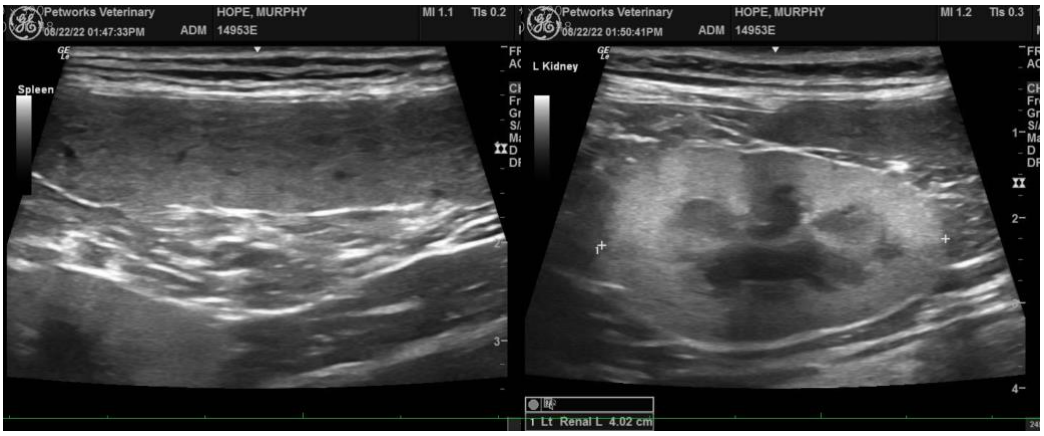
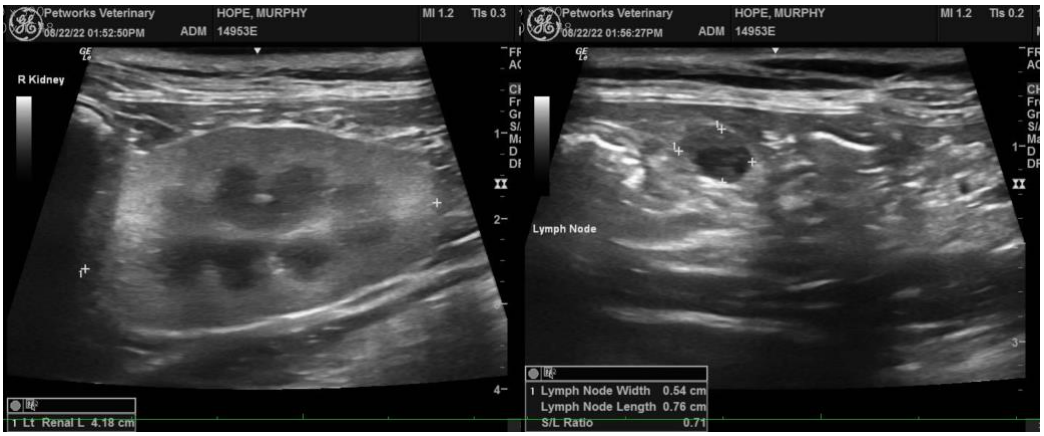
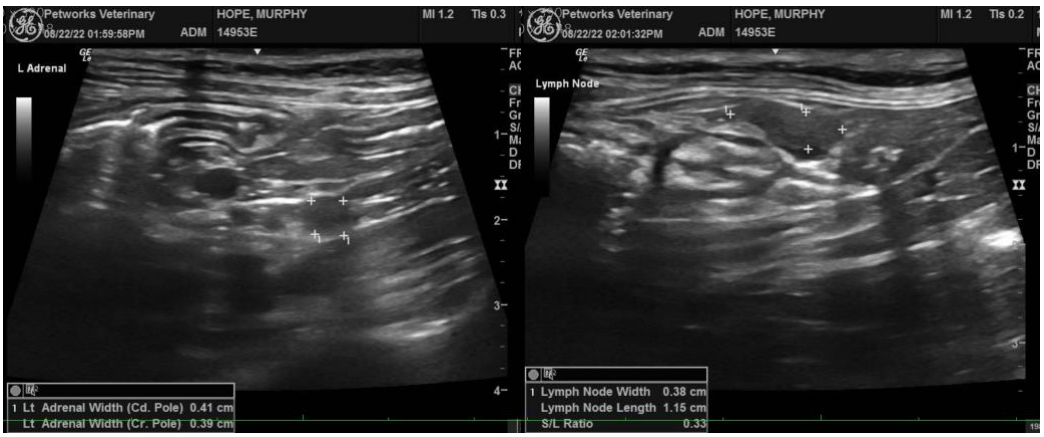
of the kidneys in the form of SDMA, BUN, creatinine, urine specific gravity +/- UPCs, etc. if proteinuria is present, blood pressure, etc. for progression of kidneys disease, at which time therapeutic intervention could be reassessed.







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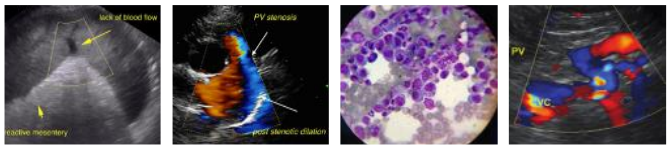

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM DACVIM

Beth.Johnson@SonoPath.com