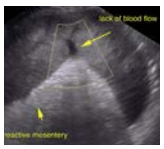
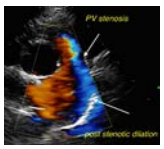
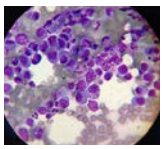
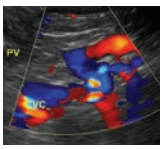
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Hemi Hatfield

SPECIES
Feline

BREED
DSH

SEX
Spayed Female

AGE
8 Years

WEIGHT
22 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
Dr. Sorbo

HOSPITAL NAME
Mill Brook AC

REFERRING VET
Dr. Jeffers

INVOICE
41482

DATE
9/21/22

PRESENTING CLINICAL SIGNS

Diabetic cat. Difficult to control. PUPD. Dribbles urine, pollakiuria. Recent BG on freestyle libre normal. Giant cat - acromegaly vs hyperadrenocorticism, vs other?

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is subjectively overdistended. 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 large in size 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, or infarcts observed. The left kidney measures 5.0 cm. The right kidney measures 5.6 cm. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted in both kidneys. A cortical cyst is noted in the caudal pole of the right kidney.

Adrenal Glands

Adrenal glands are bilaterally uniformly plump egg-shaped adrenals, hypoechoic in echogenicity with bilateral dystrophic mineralization noted. This is most likely a benign age-related change. This change can be caused by chronic stress/disease, so investigation for/management of other disease (chronic kidney disease, hyperthyroidism, etc.) is recommended. The left adrenal gland measures 1.3 cm long x 0.50 cm thick. The right adrenal gland measures 0.64 cm thick.

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

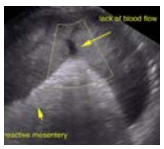
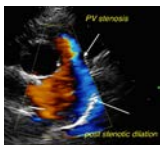
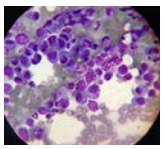
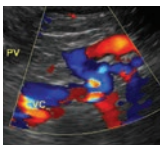
Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal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

The 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 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

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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

Pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and has a mildly irregular undulating contour. Parenchyma is coarse with mixed echogenic remodeling noted. Pancreatic duct dilation is noted.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

PRIMARY FINDINGS

- **Feline renomegaly –** These renal changes can be seen with glomerular or interstitial nephritis, FIP, amyloidosis, acute tubular necrosis or infiltrative neoplasia such as lymphoma. Normal variant due to fat deposition cannot be ruled out, especially in a large cat, where large kidneys could be a normal patient variant.
- **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.
- Chronic active pancreatitis

SECONDARY FINDINGS

- Urinary bladder debris
- Age related adrenal changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The adrenal gland changes in these images are more consistent with normal age variant than hyperadrenocorticism. Given this patient's reported normal BG on the most recent freestyle evaluation, acromegaly, Cushing's disease, etc. are considered less likely as a cause for the patient's clinical signs, as the diabetes may be decently regulated if normal BGs are being reported. In fact, too much insulin and a Somogyi effect occasionally could be occurring, and recommendations include a full 24-48+ hour evaluation of BGs if not recently evaluated.

Chronic active pancreatitis could be contributing to difficulties in regulating, and recommendations include a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory.

Additionally, a urinary tract infection, or, given this patient's subjectively overdistended bladder, lack of completely emptying the bladder due to a concurrent neurologic condition, etc. may be playing a role in the urinary signs versus PU/PD primarily. 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.

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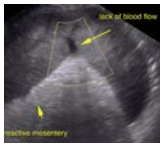
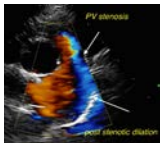
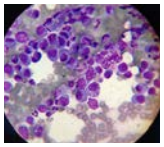
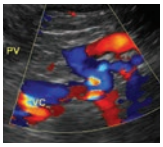

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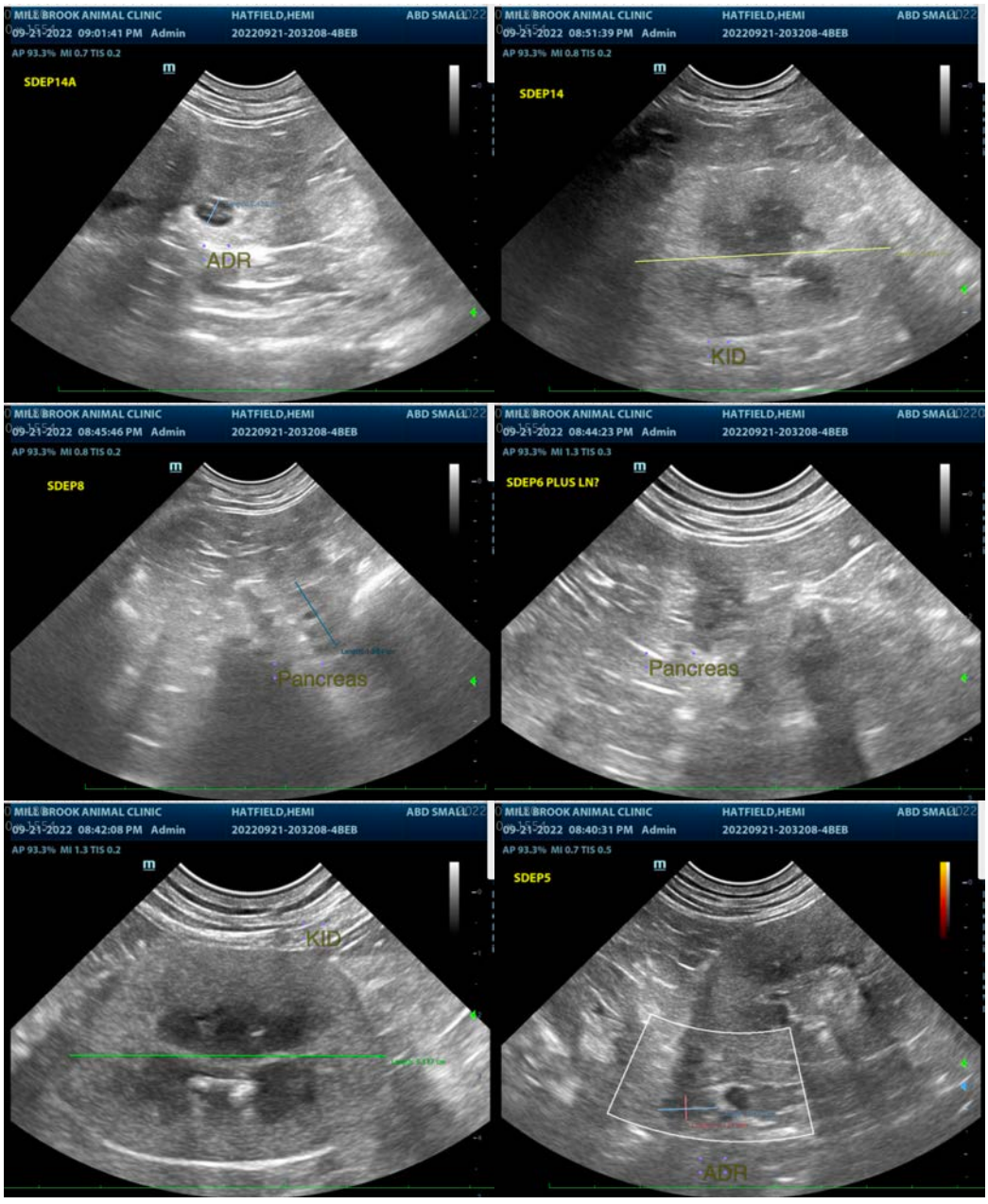
The appearance of the liver is consistent with a diabetic cat and the kidneys are likely normal in a large cat. However, a fine needle aspirate of the liver and/or the kidneys could be considered if patient's coagulation status is appropriate to more definitively rule out infiltrative round cell neoplasia such as lymphoma, considered unlikely, but possible.



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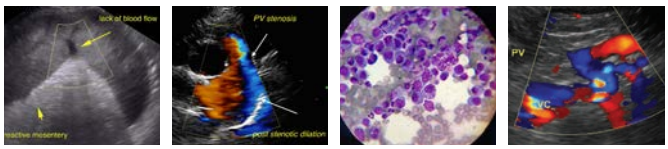

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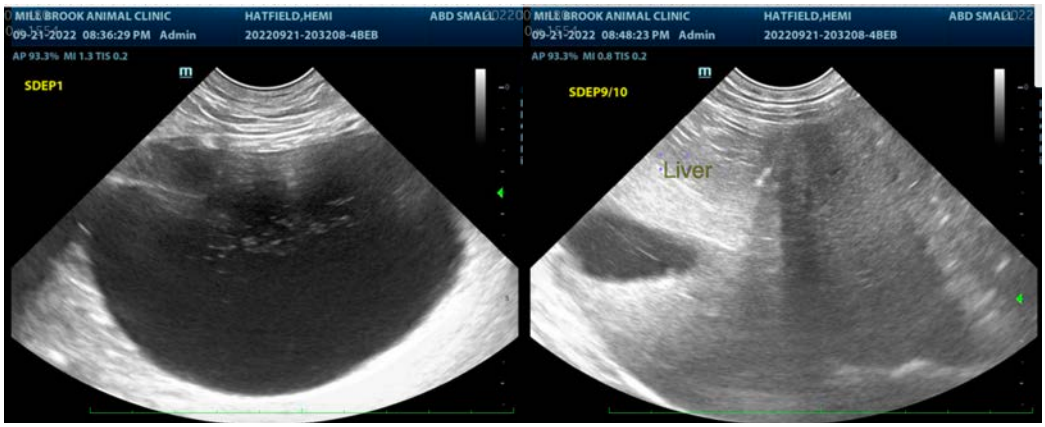

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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
Beth.Johnson@sonopath.com