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Clinical Sonography & Telecytology
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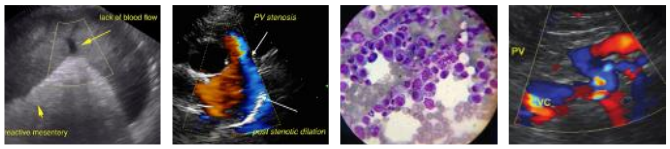


SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Monkey McGinley

SPECIES
Feline

BREED
DSH

SEX
MN

AGE
5yr

WEIGHT
4.79kg

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
Tom McNeill

HOSPITAL NAME
SVS Imaging CT

REFERRING VET
Madison Veterinary Specialists Dr. Maller

INVOICE
11719ag

DATE
09/26/2022

PRESENTING CLINICAL SIGNS

Monkey has been sounding raspy/gurgly for the last two weeks. Owners brought up these concerns when they were here for a dermatology appointment recently and BW + rads were done. Monkey was diagnosed with diabetes and owners scheduled a consult with IM for this Thursday. Owners think Monkey has been declining for the past couple of days so did not want to wait for their IM appointment. Monkey has been lethargic since Thursday and not eating since Friday. He has been drinking less and licking his lips a lot. Owners also found a lesion on his front right paw this morning. Monkey is FIV + and has a hx of allergies. Newly diagnosed with diabetes mellitus on 9/21/22.

Abnormal PE/Chem/CBC/UA Results: 9/21/22 Glu 316 Fructosamine 627 9/26/22 Glu 328 Glob 5.6 ALT 175 T. Bili 3.0 Chol 263 Urinalysis- USG >1.050, glucosuria, ketonuria, suspected bactiuria.

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.

Right kidney is normal in size (4.7 cm), shape and echogenicity. It has smooth peripheral margination. Mildly decreased corticomedullary distinction was present. There is no evidence of pyelectasia, or mineral observed. A chronic infarct is noted.

Left kidney is normal in size (4.32 cm), shape and echogenicity. It has smooth peripheral margination. Mildly decreased corticomedullary distinction was present. There is no evidence of pyelectasia, mineral or infarcts observed.

Prostate is normal in size, echotexture and echogenicity for a neutered male.

Adrenal Glands

Adrenal glands are bilaterally uniformly plump egg-shaped adrenals (left 0.53 cm, right 0.31 cm), hypoechoic in echogenicity with the finding more significant in the left adrenal gland. 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.

Spleen

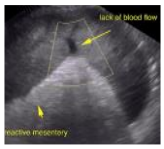
Spleen is generally large in size with a normal smooth capsular contour. Parenchyma is diffusely nodular in appearance characterized by small discrete hypoechoic nodules. Splenic vasculature appears normal.

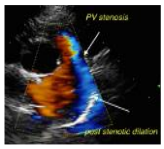
Liver

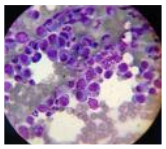
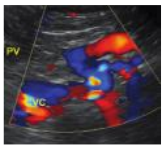
Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal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

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal





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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 intestine demonstrates areas of mildly thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated. The lumen of the small intestine is empty with no evidence of obstruction or foreign material.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

Pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

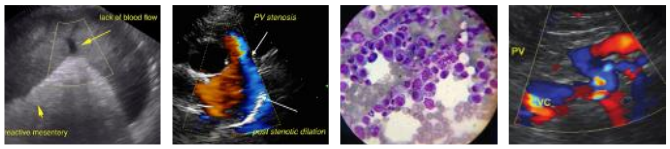
There is a tiny scant amount of anechoic free fluid between the liver lobes and diffusely prominent lymph nodes including medial to the spleen as well as gastric, hepatic and mesenteric.

ULTRASONOGRAPHIC FINDINGS

- Hyperechoic hepatomegaly (feline) – 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.
- Gallbladder debris (feline) – Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness, however, it can also be associated with hepatobiliary disease in cats and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.
- Splenic micronodular hyperplasia pattern – This nodular change is often associated with benign aging nodular hyperplasia. Infiltrative neoplasia, however, including both early hemangiosarcoma as well as round cell neoplasia cannot be ruled out, especially given the concurrent splenomegaly.
- Inflammatory bowel disease (IBD) pattern – Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. No aggressive lymphadenopathy, loss of layering, etc. is noted to make lymphoma more probable, but lymphoma cannot be definitively ruled out without tissue sampling.
- Diffuse lymphadenopathy both reactive as well as infiltrative lymphoma are differentials and cannot be differentiated without tissue sampling
- 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 and should be interpreted in combination with laboratory changes.
- Urinary bladder debris
- Age related adrenal changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

1. A urine culture is recommended
2. This patient's clinical signs are likely secondary to the reported DKA status +/- concurrent UTI and even possible pyelonephritis. Options include treating then pursing diagnostics based on



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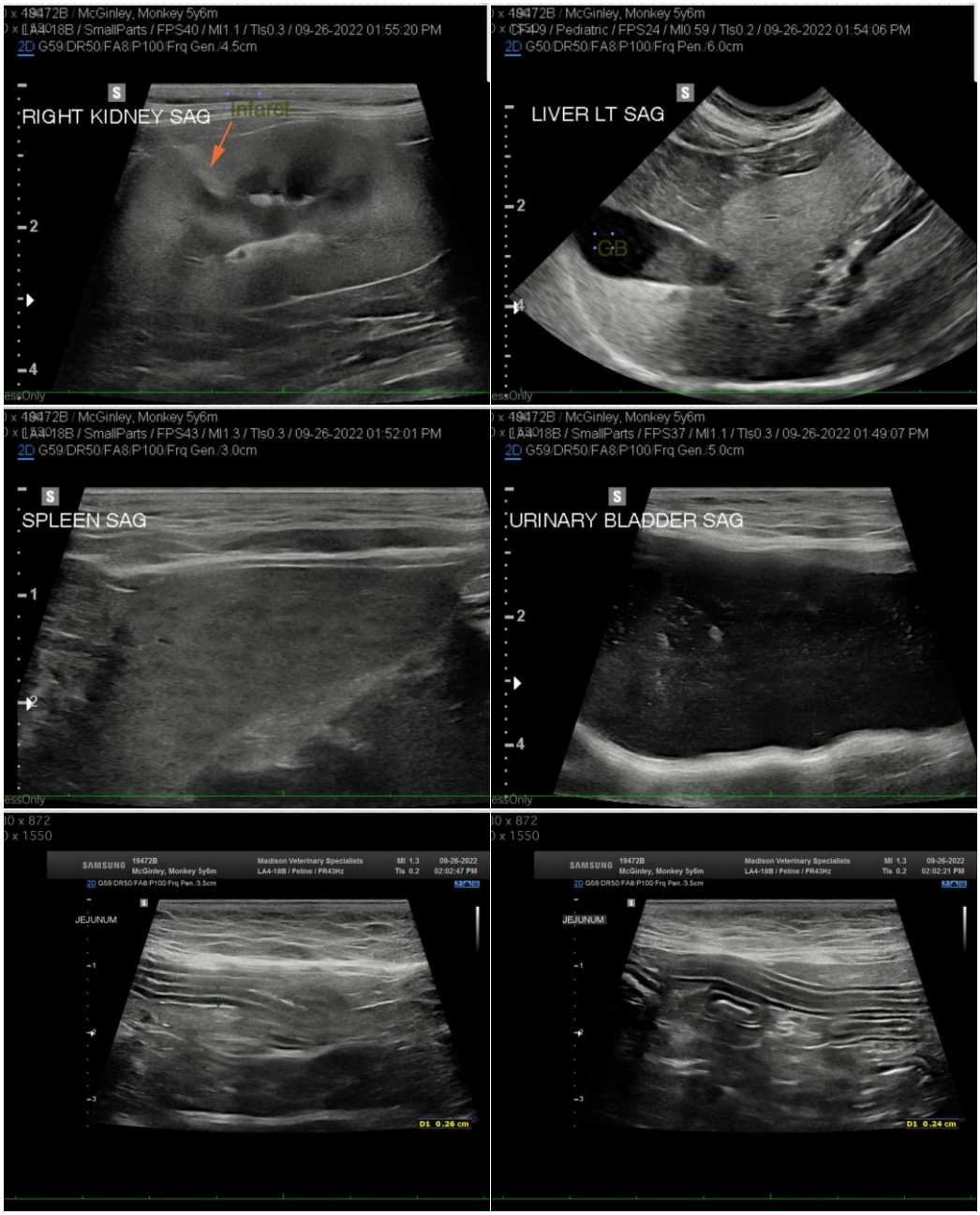
response to treatment or pursing further diagnostics now. A FNA of both the liver and spleen could be considered assuming normal clotting status. Additionally a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function. In the meantime medical management of the DKA as well as possible hepatic lipidosis etc. is recommended with fluid therapy, antiemetics, gastric protectants, hepatic nutraceuticals, antibiotics and aggressive nutritional support including feeding tube placement if patient is not responsive to appetite stimulants. Short acting insulin with close monitoring of GLU and ketones is recommended. If patient is eating well, transition to a longer acting insulin once ketones have resolved for at home use such as glargine could be initiated.



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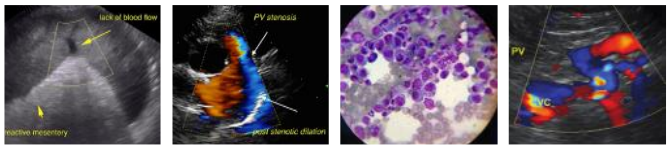

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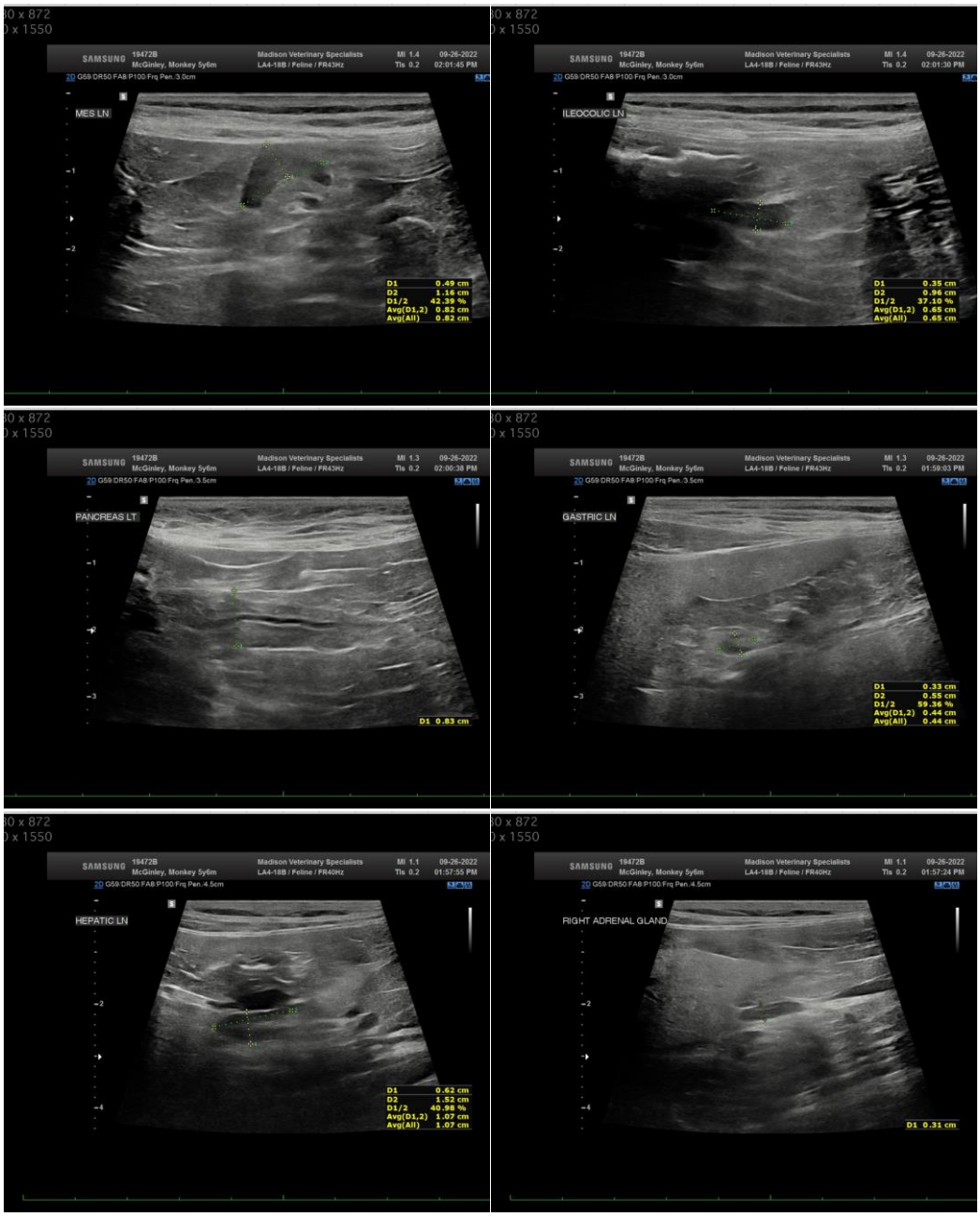

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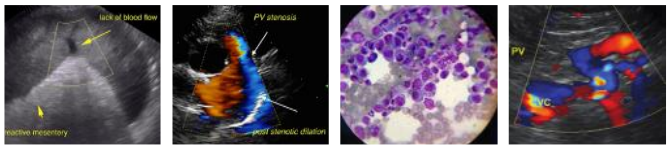

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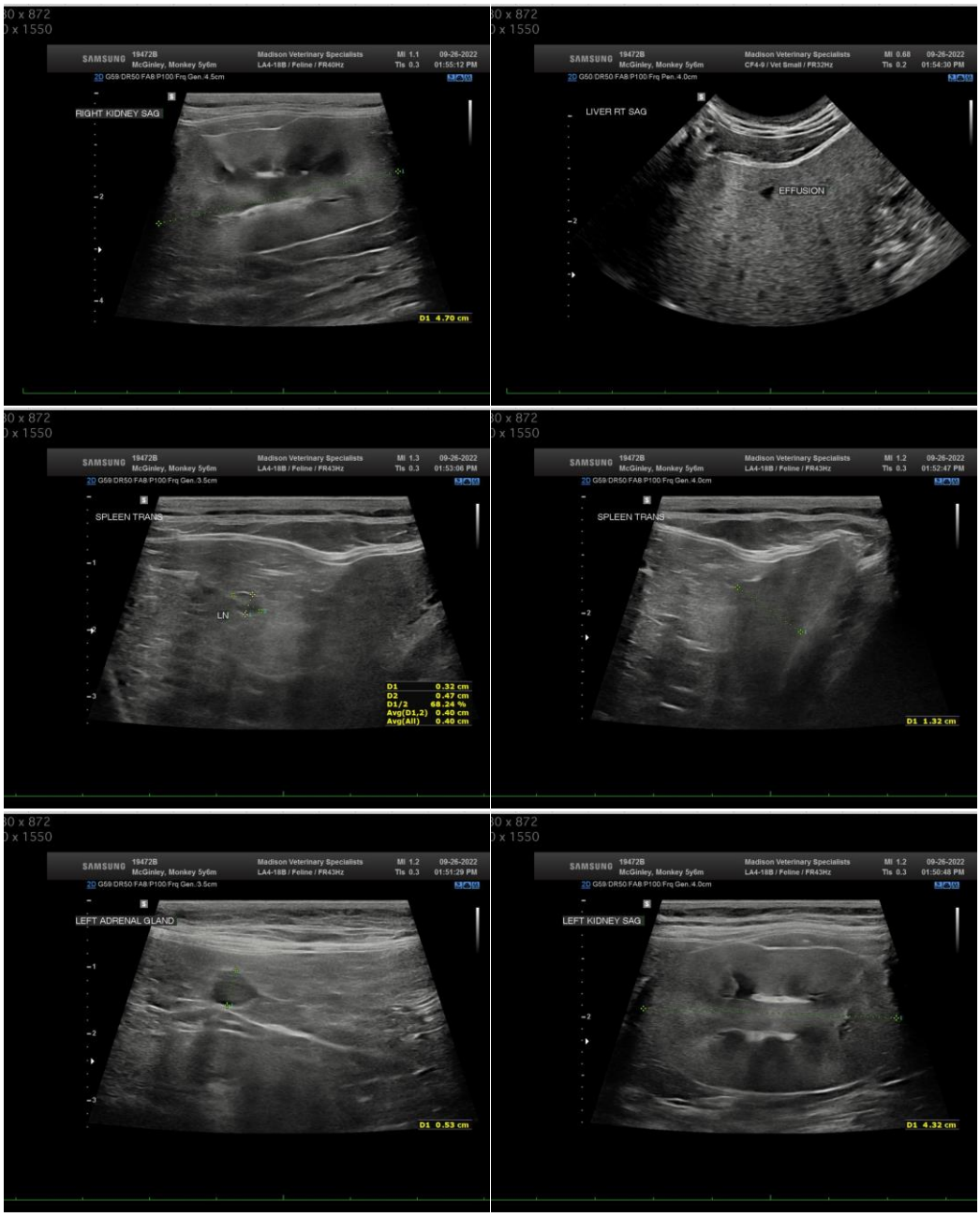

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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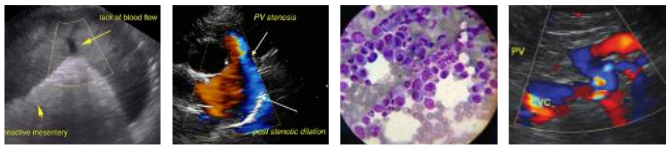

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