**PATIENT**

Lucky Keys

SPECIES

Canine

BREED

Mix Breed

SEX

Neutered Male

AGE

9 years

WEIGHT

28 Pounds

INTERPRETED BYBeth Johnson, DVM
DACVIM**IMAGING PERFORMED BY**

Amy Mayhew LVT

HOSPITAL NAME

SVS Imaging Michigan

REFERRING VET

Union Lake VH

INVOICE

30868

DATE

6/7/22

PRESENTING CLINICAL SIGNS

History: Changes to right cranial lung lobe, possible small amount of pleural effusion. Concern for changes in right cranial lung field. A brief thoracic scan was done of this area and included in this submission.

Abnormal PE/Chem/CBC/UA Results: Concern for neoplasia. History of mitral and tricuspid regurg, did not require meds at echo last year.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

Urinary bladder is moderately distended with anechoic contents. It has normal uniform wall thickness (< 0.2 cm). No masses or cystoliths are observed.

The prostate was unable to be fully visualized, but there is no overt pathology in the area of the prostate.

Left kidney is normal in size (5.59 cm), shape and echogenicity. It has smooth peripheral margination and appropriate corticomedullary distinction. There is no pyelectasia noted. No mineral is observed. There is a small cortical cyst in the left kidney.

Right kidney is normal in size (5.67 cm), shape and echogenicity. It has smooth peripheral margination and appropriate corticomedullary distinction. There is no pyelectasia noted. No mineral is observed.

Adrenal Glands

Left adrenal gland is normal in size (0.46 cm at cranial pole and 0.6 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable.

Right adrenal gland is normal in size (0.65 cm at cranial pole and 0.57 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable.

Spleen

Spleen is subjectively normal in size with normal smooth margins. Parenchyma is normal in echogenicity and echotexture. A small, anechoic 0.2 cm nodule was noted and does not disrupt normal curvilinear pattern and a second, hypoechoic homogenous mass that measures 1.0 cm off the tail of the spleen. The mass does disrupt the capsule. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged with rounded margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature appears normal. Gallbladder is mildly distended with anechoic contents. The wall is smooth without visible thickening. There is no evidence of common bile duct dilation. See other.

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Gastrointestinal

The visible gastric wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm). The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent. See other.

The small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). There are no luminal contents noted within small intestines.

Colon is normal in wall thickness (< 0.2 cm) and layering.

Pancreas

Pancreas has normal homogenous echotexture and is normal in echogenicity and smooth margination. There is no evidence of peripancreatic inflammation.

Free Abdomen

Lymph nodes are normal with no observed enlargement.

Other

A large amount of anechoic free fluid is present throughout the abdomen combined with hyperechoic, bunched mesentery that is most appreciated in the cranial abdomen which combined with the gas in the stomach somewhat limits full visualization of the stomach. The vena cava and hepatic veins are subjectively mildly distended.

ULTRASONOGRAPHIC FINDINGS**PRIMARY FINDINGS:**

Heterogenous liver – Differentials for hepatic changes include both benign steroid (vacuolar) hepatopathy or extramedullary hematopoiesis as well as infiltrative round cell or metastatic neoplasia.

Small splenic and a splenic mass off the tail of the spleen. Differentials include both benign lesions such as hematomas, nodular hyperplasia, extramedullary hematopoiesis, etc. as well as infiltrative neoplasia, which can mimic benign lesions especially given the capsular disruption caused by the larger lesion.

Large volume of free abdominal fluid and enhanced, hyperechoic, clumped mesentery throughout the abdomen.

Subjectively distended cranial vena cava and hepatic veins.

SECONDARY FINDINGS:

Incidental left renal cortical cyst.



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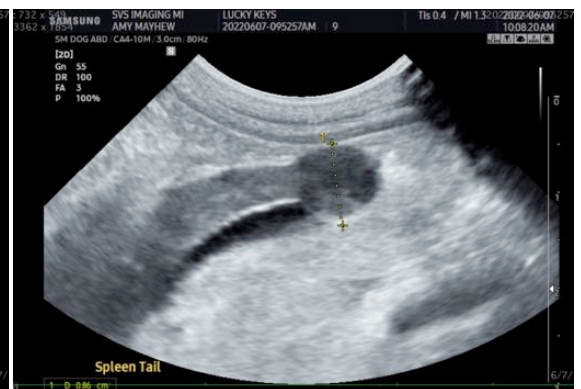
DATE

6/7/22

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Recommendations:

1. Mildly distended hepatic veins and cranial vena cava could indicate a cardiac or thoracic cause for the fluid. Therefore, the reportedly already performed echocardiogram is recommended followed by potentially by a thoracic CT pending the results of the echocardiogram given the reported thoracic radiographic changes.
2. Given the splenic nodule, heterogenous liver and clumped, subjectively nodular mesentery neoplasia such as carcinomatosis/other cannot be ruled out. If the echocardiogram does not indicated congestive heart failure then fluid analysis for cytology as well as FAN of the liver and splenic nodule are all recommended if the patient's coagulation status is appropriate.



IMAGING PERFORMED BY

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svsimagingmi@gmail.com



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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