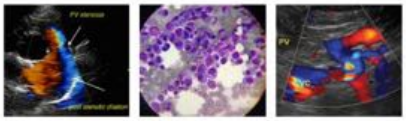


PATIENT

Clover Hehling
56849A

SPECIES

Canine

BREED

Pomeranian

SEX

Female Spayed

AGE

13 years

WEIGHT

5.4 kg

INTERPRETED BY

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

IMAGING PERFORMED BY

Tom McNeill

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

Madison Vet Specialists Dr. Patton

INVOICE

12296

DATE

2.27.23

PRESENTING CLINICAL SIGNS

History: Clover presented to the MVS Emergency Service on Feb 26, 2023, at 4:30pm, for evaluation of Respiratory Distress and Liver Mass Clover is presenting at MVS as a Transfer for Paws Health for difficulty breathing. 2 years ago, Clover was diagnosed by the pcDVM for collapsing trachea. Since being diagnosed the coughing and panting has progressively gotten worse. Clover has been prescribed Hydrocodone and Meloxicam for coughing and inflammation, but it has not made much of a difference in Clover's condition, so the hydrocodone and bronchodilators were discontinued. Clover was staying with a family member the last week, and they have noticed that her breathing has progressively worsened, and she now starts to roll during these episodes. They brought her into the ER (Paws Health) on Friday, where they found a liver mass on radiographs. O is concerned that the Liver mass is causing the respiratory issues due to the size. She was doing well on oxygen therapy there, but the Owner was told that she was not improving and that they recommended transferring Clover to MVS for further diagnostics. About 1 yr ago, they started Clover on Vetoryl due to a mild elevation on a Cushing test, but it was discontinued after 1 month due to the patient not improving while on the medication. No S/V/D. U/D normal. Current medications: Meloxicam SID, Melatonin Current diet: Very picky eater. Offered anything that she will eat.

Abnormal PE/Chem/CBC/UA Results: PCV - 35% (35-55) TS - 7.6 (5.2-8.2) WBC - 23,690 - Neutrophils - low at 1,070, Lymphs elevated at 17,300 and Mono at 4,900 ALT - above analyzer range ALKP >2000 U/L UA -USG 1.009

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is distended with mostly anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone is normal.

The left kidney is normal in size (4.11 cm in length) with a normal shape and smooth peripheral contours. The cortex is hyperechoic relative to the spleen. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. Trace pyelectasia is present. There is no evidence of infarcts or hydroureter.

The right kidney is normal in size (4.65 cm in length) with a normal shape and smooth peripheral contours. The cortex is hyperechoic relative to the spleen. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. Trace pyelectasia is present. There is no evidence of infarcts or hydroureter.

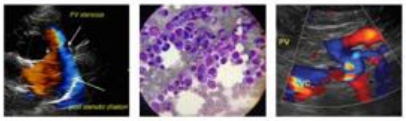
Adrenal Glands

The left adrenal gland is mildly enlarged (0.62 cm at cranial pole) (0.97 cm at caudal pole) with a slightly irregular shape. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is in normal size (0.56 cm at cranial pole) (0.67 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.14 cm in width at the level of the hilus) with a normal capsular contour. A light micronodular pattern is observed throughout the organ. No focal lesions are observed. Splenic vasculature is normal.



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Liver
The liver is subjectively enlarged with irregular peripheral contours. Multiple coalescing nodules/masses are observed throughout the organ (the largest measuring >8.00 cm, left side). The left-sided mass contains numerous mineralized foci. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder is moderately distended. The wall is normal in thickness. A moderate amount of partially dependent sludge is observed within the lumen, with suspected mucous accumulation at the periphery, in at least one portion of the gall bladder. The cystic and common bile ducts are normal/not seen.

Gastrointestinal
The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The ileocecocolic junction and colonic wall are normal. There is no evidence of an obstructive pattern.

Pancreas
The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen
Trace free fluid is suspected. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Multiple hepatic masses. Neoplasia (i.e., round cell tumor, adenocarcinoma) is suspected, with a lower possibility of multifocal inflammatory disease or other hepatopathy.
- The gall bladder changes could be consistent with an emerging mucocele, cholestasis, or less likely, fasting.
- Trace ascites

Secondary Findings

- Bilateral chronic renal changes with subtle dystrophic mineralization and trace pyelectasia
- The splenic parenchymal changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis, splenitis, antigenic stimulation, or infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- Given the CBC changes, a clinical pathology review is recommended.
- Consider fine-needle aspirates of the hepatic masses +/- spleen to further evaluate for neoplasia. Clotting times should be assessed prior to aspiration. Twenty-five gauge-needles should be used for the procedure.

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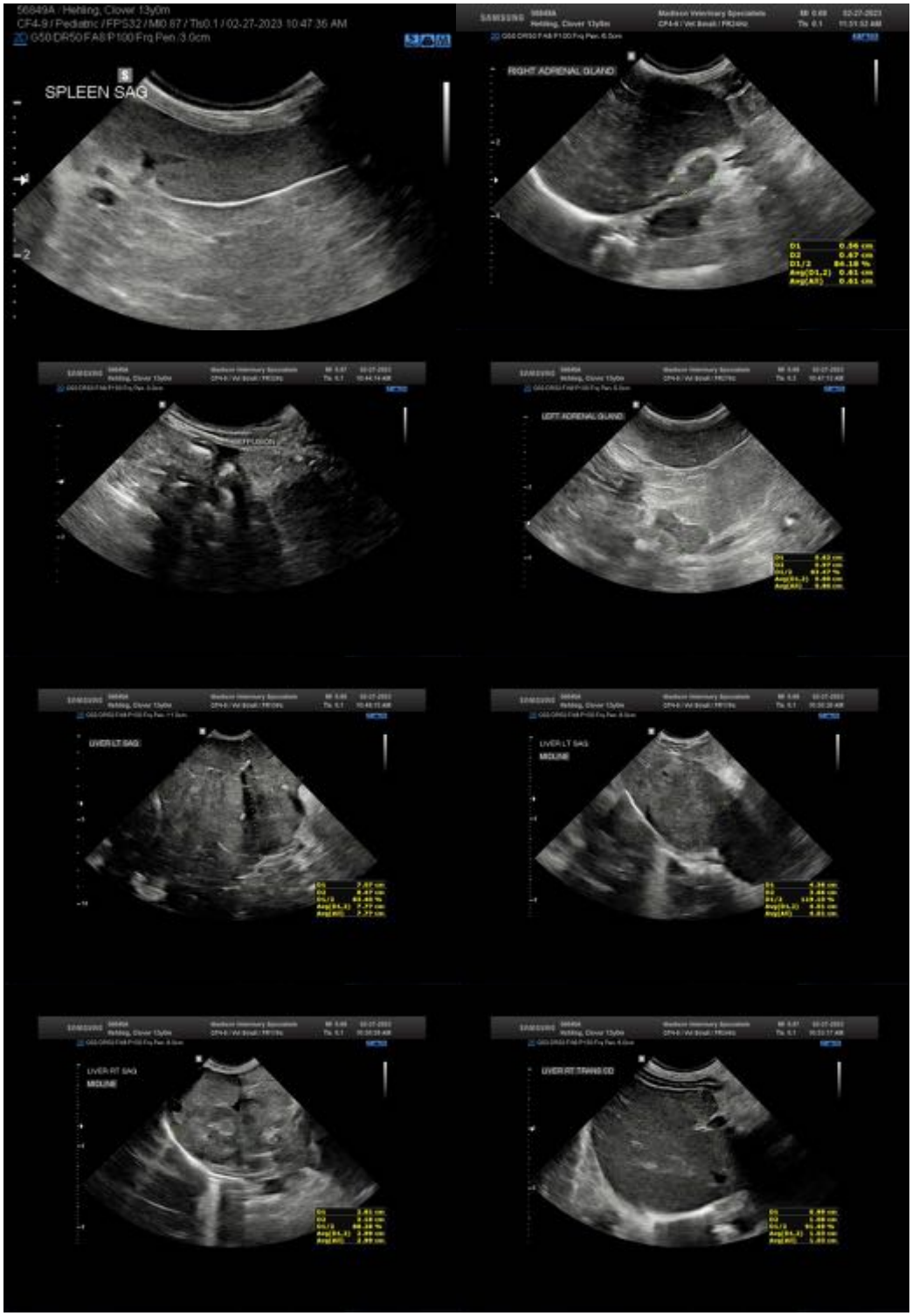
- If the cytology results are inconclusive, more advanced testing (i.e., biopsies) may be necessary to get a definitive diagnosis.



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SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com