**PATIENT**

Austin Ghazi

SPECIES

Canine

BREED

Cocker spaneil mix

SEX

Neutered Male

AGE

15 Yrs.

WEIGHT

36.6 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

PMVU

HOSPITAL NAME

Heritage AH

REFERRING VET

Dr. Cathy Jarrett

INVOICE

13365

DATE

5/11/22

PRESENTING CLINICAL SIGNS

History: Went to ER 3-4 days ago for severe anemia, PCV 14%, and got a blood transfusion. Anemia, inappetence, lethargy, and dark stool.

Abnormal PE/Chem/CBC/UA Results: (05/13/22) CBC: HCT 21.2%, HGB 7.4, RBC 3.22. CHEM: BUN 8.3, Phosphorus 5.2, Calcium 8.7, TP 4.8, ALB 2.3, ALT 339, ALP 220.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with mostly anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is normal in size (2.41 cm in length; 0.85 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal in size (5.93 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild to moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. A 0.93 cm multi-septated cortical cyst is observed at the caudal pole. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal size (6.44 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. A 0.93 cm multi-septated cortical cyst is observed at the caudal pole. A few cortical cysts are present. Trace pyelectasia is present. There is no evidence of infarcts or hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is enlarged (0.96 cm at cranial pole) (1.03 cm at caudal pole) (2.74 cm in length) with a slightly irregular shape. The parenchyma is heterogeneous with loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature appear normal.

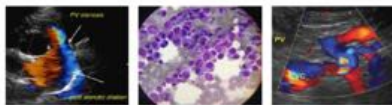
The right adrenal gland is normal size (0.39 cm at cranial pole) (0.37 cm at caudal pole) (1.98 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.96 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A few, ill-defined myelolipomas are observed in the region of the hilus. Splenic vasculature is normal.

Liver

The liver is enlarged with irregular peripheral contours. An approximately 10 cm heterogeneous mildly cavitated mass is arising from the right side. The lesion causes capsular expansion. The remaining hepatic parenchyma is slightly mottled in appearance. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately

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distended. There is a questionable bi-lobed confirmation (vs an adjacent hepatic cyst with echogenic debris). The gallbladder lumen contains some echogenic material. The distal common bile duct is borderline dilated (up to 0.38 cm) and can be seen entering in the duodenal papilla. There is no obvious evidence of an intraluminal obstruction.

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Gastrointestinal

The gastric lumen is not distended. The gastric wall is normal in thickness with a normal layering pattern. 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 ileocecal colic junction and colonic wall are normal. No obstructive disease is noted.

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Pancreas**SEX**

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A portion of the pancreas is obscured by the large hepatic mass. In the visualized portions, no obvious pathology is seen.

Free Abdomen**AGE**

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Trace free fluid is observed. A 1.96 cm jejunal lymph node is visualized. The node is normal in shape and echogenicity.

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ULTRASONOGRAPHIC FINDINGS**Primary Findings:**

- Large hepatic mass. Neoplasia (i.e., adenoma, adenocarcinoma, round cell tumor, sarcoma) is considered likely with a lower possibility of benign pathology. The diffuse hepatic parenchymal changes are non-specific and could be secondary to a benign age-related process (i.e., regenerative nodular hyperplasia and/or vacuolar hepatopathy). Alternatively, metastatic disease is also a possibility.
- The trace ascites is likely secondary to the hepatic mass.

Secondary Findings:

- Bilateral, age-related renal changes with dystrophic mineralization.
- The left adrenal changes could be consistent with benign hyperplasia or an emerging tumor.
- The prominent jejunal lymph node is likely reactive.

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*An obvious cause for the patient's severe anemia is not identified in this study. Considerations include blood loss (i.e., GI, bleeding from hepatic mass, other), hemolysis (i.e., secondary to neoplasia), bone marrow disease, infectious disease, other.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

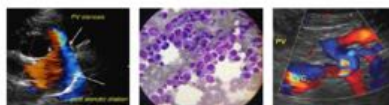
- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- A CBC with reticulocyte count is recommended to determine if the anemia is regenerative vs non-regenerative. If regenerative, a slide agglutination test should be considered to assess for autoagglutination. If autoagglutination is not present, an upper GI endoscopy could be

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considered to assess for low-grade GI blood loss, particularly given the patient's history of dark stools.

- To further address the liver mass, consider consultation with a board-certified surgeon to discuss mass removal or debulking. An abdominal CT scan would be useful in pre-surgical planning.

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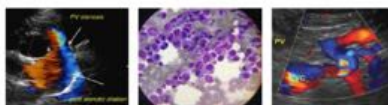
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

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