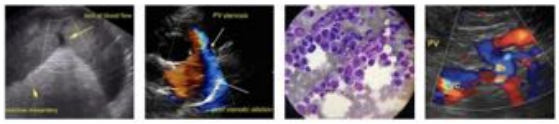


PATIENT

Daisy Morris

SPECIES

Canine

BREED

Beagle Mix

SEX

Female, intact

AGE

10/15/2020

WEIGHT

57 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

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

HOSPITAL NAME

Meadowlawn Animal

REFERRING VET

Dr. Gynn Hardee

INVOICE

12730

DATE

12/21/21

PRESENTING CLINICAL SIGNS

Large abdomen and ascites and removed 10 lbs fluid via abdominocentesis. Rule out liver insufficiency. We could not locate a normal liver on us. Heartworm is neg and blood work has low bun and elevated liver enzymes and points to liver issue This is not a pyometra .

ULTRASONOGRAPHIC EXAMINATION OF THE

Urinary System

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is mildly distended. A small amount of suspended echogenic debris is observed within the lumen. 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 left kidney is mildly enlarged (6.97 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is mildly enlarged (7.24 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.38 cm at cranial pole) (0.48 cm at caudal pole) (1.94 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.

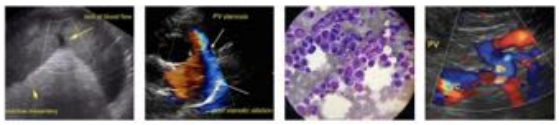
The right adrenal gland is normal size (0.49 cm at cranial pole) (0.37 cm at caudal pole) (1.44 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.39 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is extremely small In size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and homogeneous in appearance. No distinct focal lesions are observed. A large intrahepatic shunt is present along with smaller intrahepatic vascular malformations. The portal vein: caudal vena cava ratio is >1:1, consistent with portal hypertension. There is congestion of the portal, splenic and gastroduodenal veins. Multiple acquired shunts are visible



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throughout the abdomen. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of suspended echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is mildly distended with Ingesta. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The small intestinal lumen is segmentally dilated with chyme. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

Pancreas

The pancreas is prominent in size. The pancreatic duct is normal. The base and limbs of the pancreas are mildly edematous. No focal lesions are observed. There is mild peripancreatic inflammation.

Free Abdomen

A large amount of slightly echogenic ascites is observed. The abdominal lymph nodes are normal/not visible.

Other

A brief echocardiogram reveals no evidence of pericardial effusion or obvious chamber enlargement.

ULTRASONOGRAPHIC FINDINGS

- Primary large intraphepatic shunt, likely due to hepatic arteriovenous malformation (HAVM), with concurrent portal hypertension, smaller intrahepatic vascular malformations and severe microhepatica. Congestion of the portal vein, splenic vein and gastroduodenal veins and multiple acquired shunts are present.
- Swollen kidneys bilaterally, likely secondary to intrahepatic shunt.
- Mild pancreatic edema
- The severe ascites is likely secondary to hepatic dysfunction.

***A therapeutic abdominocentesis was performed during the scan without incident.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

To confirm the diagnosis, a contrast abdominal CT scan can be considered. Unfortunately, surgical correction is unlikely to improve the dog's clinical status due to the severe microhepatica and acquired shunting. Therefore, palliative care (i.e., symptomatic treatment, Denamarin, Ursodiol, and therapeutic abdominocenteses (as needed)) should be considered.

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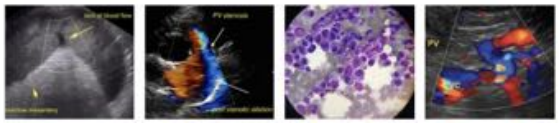

Charleston Mobile Veterinary Services
IMAGING PERFORMED BY
CharlestonMobile.Net 800.403.5408

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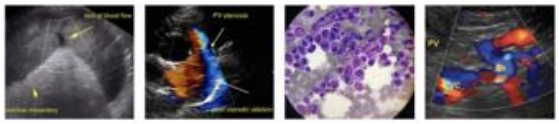

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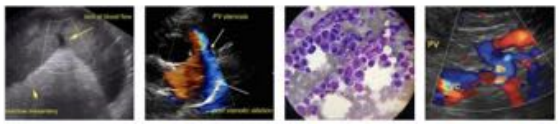

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referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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*)

Andrea.Nicastro@CharlestonMobile.net