

PATIENT PRESENTING CLINICAL SIGNS

Annie Blakely History: liver mass and a developing gallbladder mucocele. Has been doing fine for the last 14 months. Acute onset of vomiting and diarrhea. Severely elevated GGT on today's bloodwork. No fever. Has been on Ursodiol and Denamarin, but owner ran out recently.

SPECIES

Canine

Abnormal lab-work values: ALT 418. GGT 458. Normal ALP and tBili.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

BREED

Mini Goldendoodle

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. A scant amount of suspended echogenic debris is observed within the lumen. No cystic calculi are observed. The region of the trigone and visible portion of the proximal urethra are normal.

SEX

Female Spayed

The left kidney is normal in size (4.41 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

AGE

13 years

The right kidney is normal in size (4.83 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

WEIGHT

15 lbs

Adrenal Glands

The left adrenal gland is normal in size (0.48 cm at cranial pole) (0.50 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.

INTERPRETED BY

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

The right adrenal gland is upper limits of normal size (1.13 cm at cranial pole) (0.55 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.

IMAGING PERFORMED BY

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Spleen

The spleen is normal in size (1.61 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.

HOSPITAL NAME

Sun Dog Cat Moon

Liver

The liver is subjectively prominent to enlarged with swollen peripheral contours. The parenchyma is isoechoic relative to the spleen. A 6.43 cm isoechoic to slightly heterogenous mass is observed on the right side, adjacent to the diaphragm. The remaining parenchyma is mildly heterogenous in appearance. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1: 1.

REFERRING VET

Dr. Fetterolf

The gall bladder is distended. The wall is normal in thickness. A moderate to large amount of aggregated hyperechoic suspended sludge in a partially stellate pattern is observed within the lumen. The cystic and common bile ducts are normal/not seen.

INVOICE

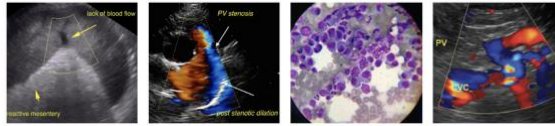
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Gastrointestinal

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

DATE

5.5.23



PATIENT

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outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

SPECIES

Canine

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.

BREED

Mini Goldendoodle

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. A 0.86 cm portal lymph node is visualized.

SEX

Female Spayed

Other

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

AGE

13 years

- Large right hepatic mass. Neoplasia (i.e., adenoma, adenocarcinoma, round cell tumor) is suspected with a lower possibility of a benign process (i.e., inflammatory focus, benign nodular hyperplasia). The mass is slightly larger compared to the previous sonogram.
- The gallbladder changes are consistent with a developing mucocele. Changes are similar to the previous sonogram.
- The prominent portal lymph node could be consistent with reactive change or early metastatic disease.

WEIGHT

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Secondary Findings

- Bilateral chronic age-related nephropathy

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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- A recheck GGT (send to a diagnostic lab) is recommended due to the possibility of an aberrant value. If persistently elevated, initiation of broad-spectrum antibiotics as empirical treatment for cholecystitis/cholangiohepatitis is recommended. In the meantime, supportive care for acute gastroenteritis is recommended. Once the patient is eating again, Ursodiol and Denamarin therapy should be resumed.
- With regard to the liver mass, a fine-needle aspirate of the mass can be considered (if clotting status is appropriate). A 25-gauge needle should be used. Alternatively, consultation with a board-certified surgeon to discuss mass removal or debulking. An abdominal CT scan would be useful in presurgical planning.
- Regarding the gall bladder changes, serial sonographic monitoring (i.e., every 6-8 weeks) is recommended to assess for progression to a fully-formed mucocele.

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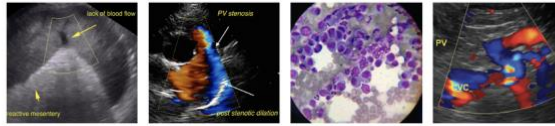
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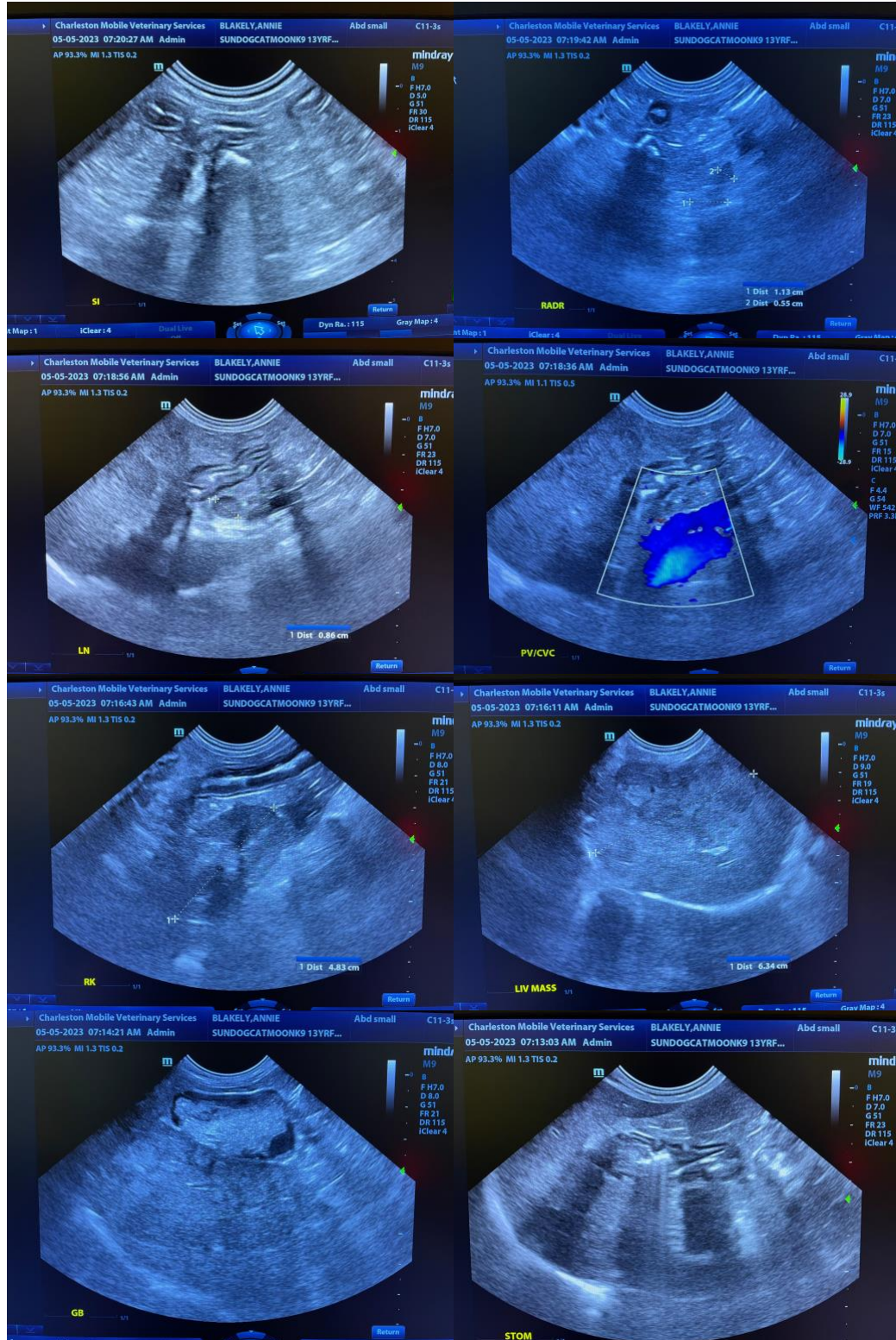
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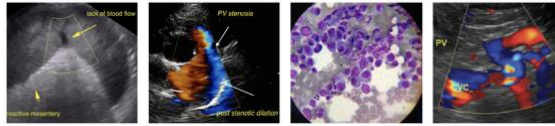
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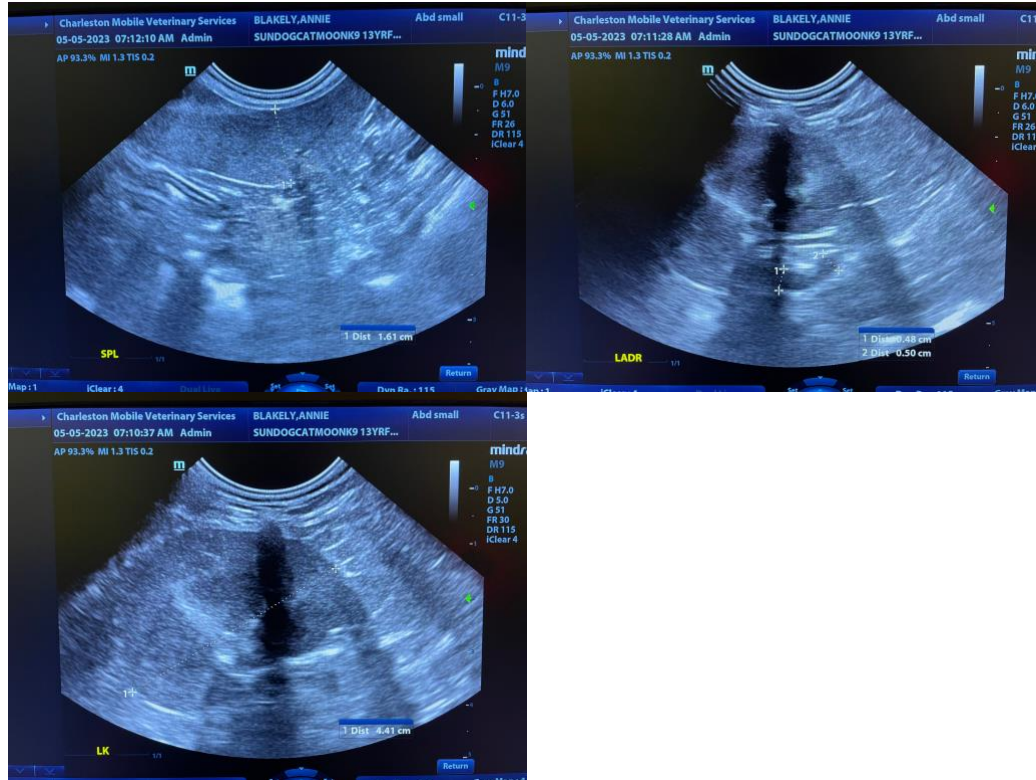
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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