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Clinical Sonography & Telecytology
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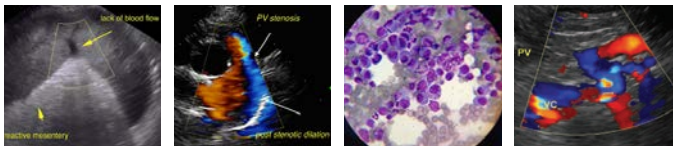

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Dakota Dinicola

SPECIES

Canine

BREED

Mixed

SEX

Neutered Male

AGE

15 Years

WEIGHT

29 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

HOSPITAL NAME

Sova Animal Hospital

REFERRING VET

Dr. Ammeraal

INVOICE NUMBER

34122

DATE

1/11/22

PRESENTING CLINICAL SIGNS

Presenting for an episode of weakness and slipped down steps other day . also was abdominal breathing bit more.
Abnormal PE/Chem/CBC/UA Results: Mult SQ fatty masses. Grade 3/6 murmur, Possible mass palpable cranial abdomen. BCS 7/9. AST 84 U/L, ALT 340 U/L, ALKP 4050 U/L, GGT 42 U/L, BUN 68mg/dL , Crea 1.9 mg/dL, Phos 6.1 mg/dL HCT 31%

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Prostate (neutered) is normal in size, echotexture and echogenicity for a neutered male.

The left kidney is normal in size (5.85 cm) and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. Non-obstructive areas of mineralization/nephroliths are noted, primarily in the diverticular of the kidney. Very mild pyelectasia is noted, measuring 0.15 cm in the sagittal view. Incidental renal cortical cysts are also noted in the left kidney.

The right kidney is normal in size (4.57 cm) and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Adrenal Glands

Right adrenal gland is normal in size (1.6 cm long x 0.74 cm at cranial pole and 0.53 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Left adrenal gland is normal in size (2.31 cm long x 0.54 cm at cranial pole and 0.57 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. An at least 6.0 cm mid left liver mass is visualized. It is primarily hyperechoic, but heterogeneous, with some cavitation noted. Visible vasculature and biliary tree appear normal without distension or congestion.

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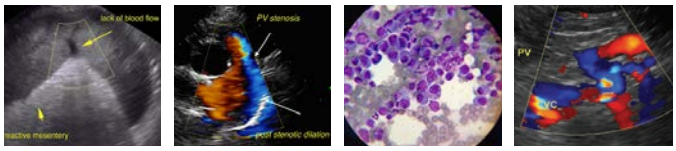

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Gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

Pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

ULTRASONOGRAPHIC FINDINGS

- Age related kidney changes – This finding is expected/consistent with age-related mild degenerative disease and should be interpreted clinically in combination with laboratory changes.
- Left kidney incidental renal cortical cysts, very mild pyelectasia and non-obstructive nephrolithiasis.
- Heterogeneous liver mass – The appearance of hepatic neoplasia with ultrasound varies, and benign versus malignant disease cannot be distinguished via ultrasound alone. However, given the appearance of the mass and the interference with normal curvilinear architecture, primary differentials include infiltrative neoplasia such as hepatocellular carcinoma, sarcoma, metastatic neoplasia, or less likely infiltrative round cell neoplasia. Benign disease such as nodular hyperplasia cannot be ruled out, but is considered much less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the collapse and the respiratory changes and heart murmur, recommendations include 3-view thoracic radiographs if not already performed to further assess cardiopulmonary status as well as to look for metastatic disease. An echocardiogram is also recommended given the reported heart murmur and episode of collapse, as is a blood pressure. A fine needle aspirate of the liver mass is recommended if patient's coagulation status is appropriate. Surgical excisional biopsy may also be elected in place of a fine needle aspirate given the cavitations and potential risk of hemorrhage should the mass rupture.

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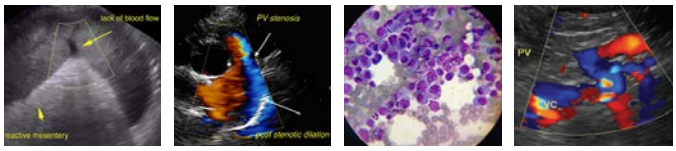

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Given the mild azotemia, urinalysis is recommended to determine specific gravity and help rule in/out renal versus prerenal azotemia. If the urine sediment is quiet, but there is protein present, a UPC is also recommended to help direct treatment of the possible chronic kidney disease.

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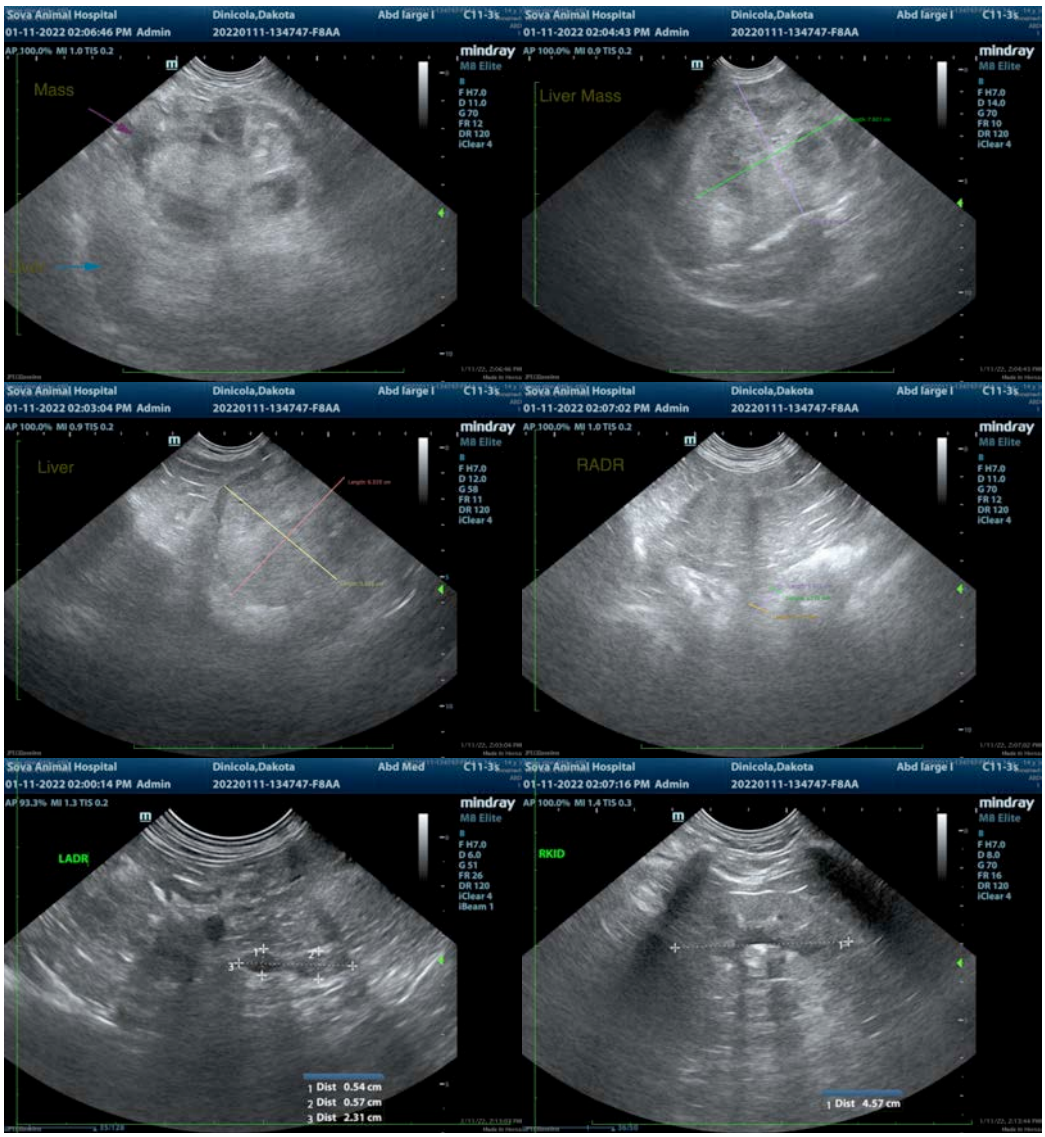

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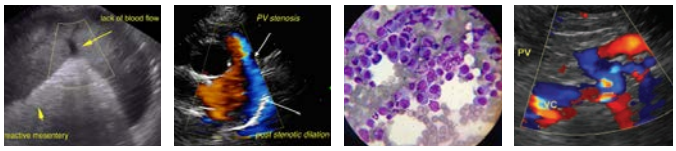

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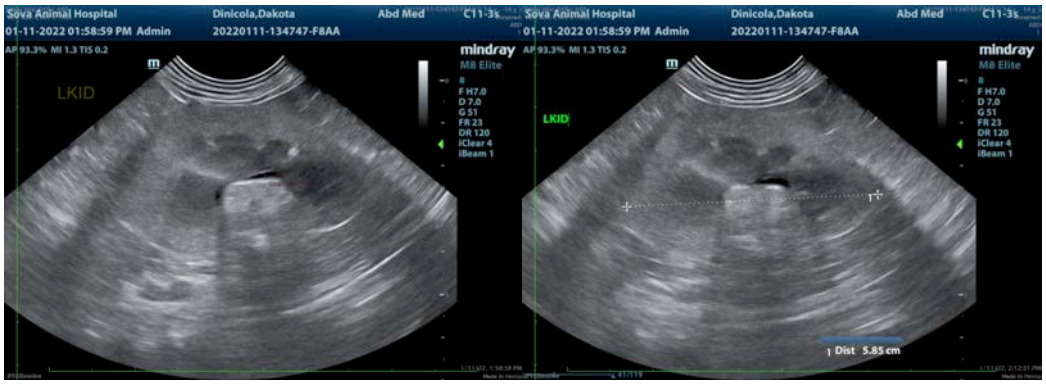

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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
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