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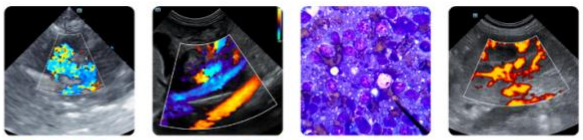

Clinical Sonography & Telecytology
Educational Teleconsultation Services™

PATIENT

Vito CiCicco

SPECIES

Canine

BREED

CKC Spaniel

SEX

Neutered Male

AGE

11

WEIGHT

20.6 lbs

INTERPRETED BY

Andrea Nicastro DVM
Diplomate ACVIM
(Sm Animal Internal Med)

IMAGING PERFORMED BY

Andrea Nicastro DVM
Diplomate ACVIM
(Sm Animal Internal Med)

HOSPITAL NAME

Southside AH

REFERRING VET

Brock Sauls, DVM

INVOICE

22209

DATE

11-3-25

PRESENTING CLINICAL SIGNS

October 17, patient presented with a history of inappetence and lethargy. Heart murmur was noted at that time and was started on Enalapril. Initial bloodwork revealed azotemia. Creatinine in the low 5s. BUN in the low 100s. Re-presented on 10/21 not doing well. Chest radiographs were taken. Possible pneumonia seen. Started on furosemide, Vetmedin and Clavamox, as the patient had harsh lung sounds. Has been treated symptomatically. Re-presented 10/25 and 10/31. On the 31st, creatinine was 6.4 BUN 12.8. UPC 1.15. Has been anemic around 23% as well, that has been persistent.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended. The wall is normal in thickness with a smooth mucosal surface. At least 3 cystic calculi are observed (one stone measuring 0.96 cm in its longest dimension). The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is normal in size (0.81 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 (4.73 cm in length) with a slightly irregular shape. The cortex is isoechoic to hyperechoic relative to the spleen and mildly heterogenous in appearance, with pinpoint hyperechoic foci, and varying-sized cortical cysts. There is moderate loss of corticomedullary distinction. At least two nephroliths are visualized (one of which is located within the renal pelvis). Mild pyelectasia is present (0.25 cm in the longitudinal plane). There is no evidence of hydroureter. Renal vasculature is normal.

The right kidney is normal in size (4.37 cm in length) with a normal shape and smooth peripheral contours. The cortex is isoechoic to hyperechoic relative to the spleen and slightly heterogenous in appearance, with pinpoint hyperechoic foci. Nonobstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size (0.52 cm at cranial pole) (0.46 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.

The right adrenal gland is normal in size (0.71 cm at cranial pole) (0.51 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 (1.29 cm in width at the level of the hilus) with a normal capsular contour. The parenchyma is subtly mottled in appearance. A 0.35 x 0.26 cm ill-defined, hypoechoic nodule is observed approximately mid-body. Splenic vasculature is normal.

Liver

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and slightly mottled in appearance. No distinct focal lesions are observed. 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.

The gallbladder lumen is moderately distended. The wall is thin and smooth. A few, small, polypoid-like lesions are arising from the mucosal surface. A small to moderate amount of mobile echogenic debris is

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observed within the lumen. The cystic and common bile ducts are normal. The duodenal papilla is normal-in-size (0.45 cm in width).

Gastrointestinal

The gastric lumen is mildly to moderately distended with ingesta. 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 segmentally dilated with chyme. The small intestinal wall is normal in thickness 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 right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely hyperechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Lymph Nodes

The abdominal lymph nodes are normal/not visible.

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion.

Other

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

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Bilateral nonspecific chronic renal changes with nonobstructive nephrocalcinosis and mild left pyelectasia. Given the patient's clinical history and sonographic changes, acute-on-chronic renal failure is suspected.
- Cystic calculi

Secondary Findings

- Minor geriatric hepatic parenchymal changes
- Gallbladder debris, non-mucocele
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The splenic parenchymal changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis, splenitis or antigenic stimulation with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).
- If the patient was fasted for this study, the presence of ingesta within the gastric lumen could suggest delayed gastric emptying.

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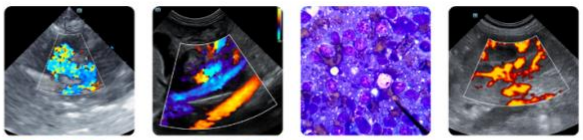

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

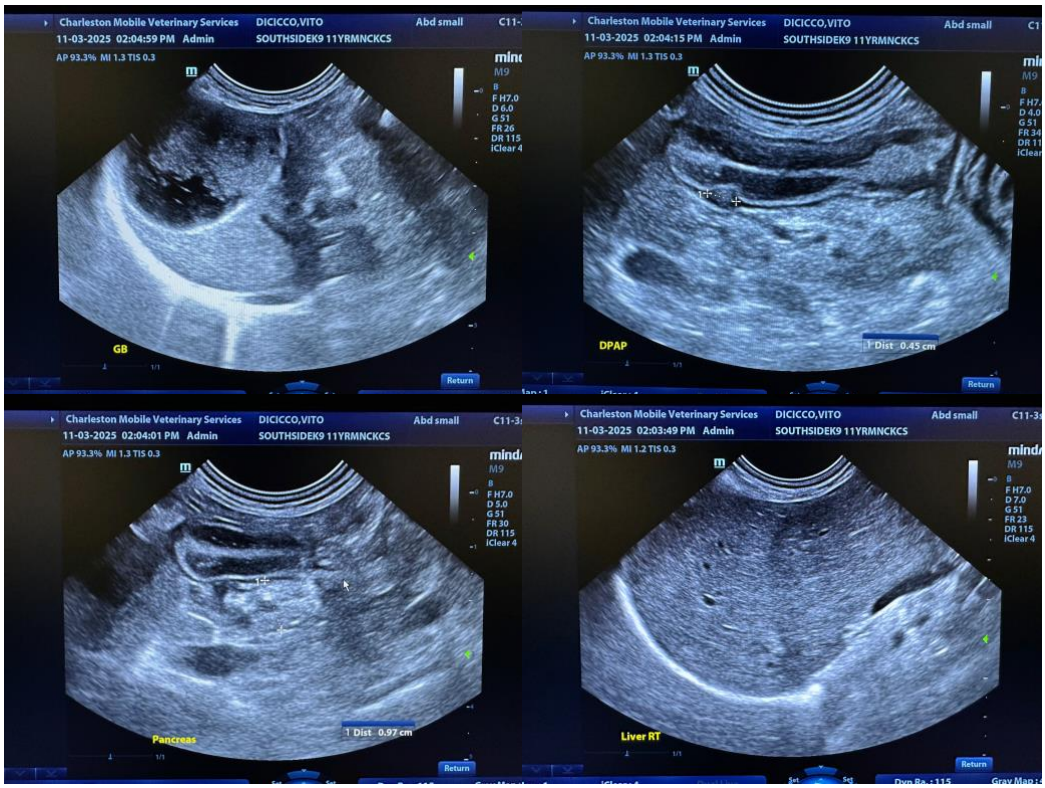
- Given the patient's clinical history, consider the following:

  1. Urinalysis with culture and sensitivity
  2. Baseline blood pressure measurement
  3. Also consider Leptospirosis testing (i.e., blood and urine PCR, serology) particularly if clinical suspicion for disease is high.
  4. A resting cortisol level to screen for hypoadrenocorticism. If resting cortisol level is < 2.0 mcg/dL, an ACTH stimulation test is recommended.
  5. In the meantime, IV fluid diuresis, broad-spectrum antibiotic therapy (while awaiting urine culture and sensitivity results) and other symptomatic measures are recommended, with close monitoring of the patient's renal values to assess progression of the azotemia. Consider referral to a 24-hour facility for care.

- Given the presence of a heart murmur, consider a cardiac work-up (i.e., echocardiogram +/- ECG) for further evaluation, particularly if aggressive IV fluid diuresis is to be initiated.

- Consider transitioning to a prescription renal diet if/when the patient's appetite normalizes.

- Given the elevated UPC, also consider initiation of an angiotensin receptor blocker (i.e., losartan, telmisartan) if the urine culture is negative for infection.



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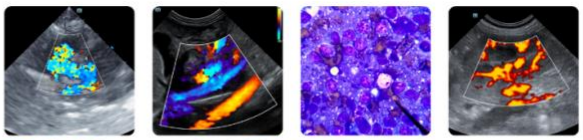

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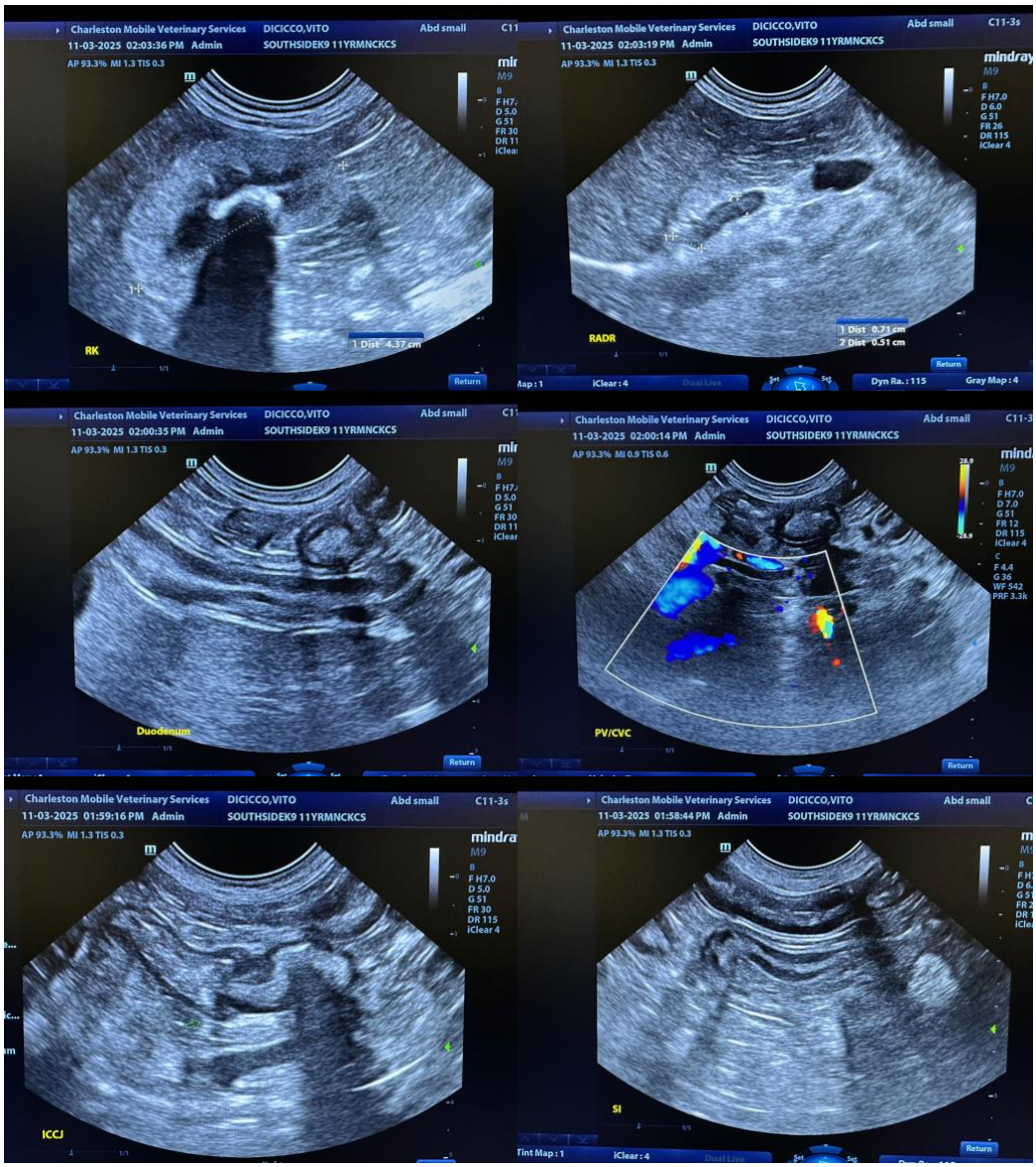

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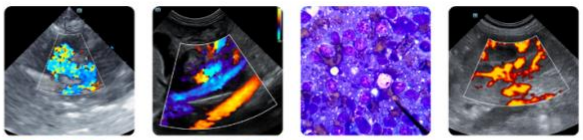

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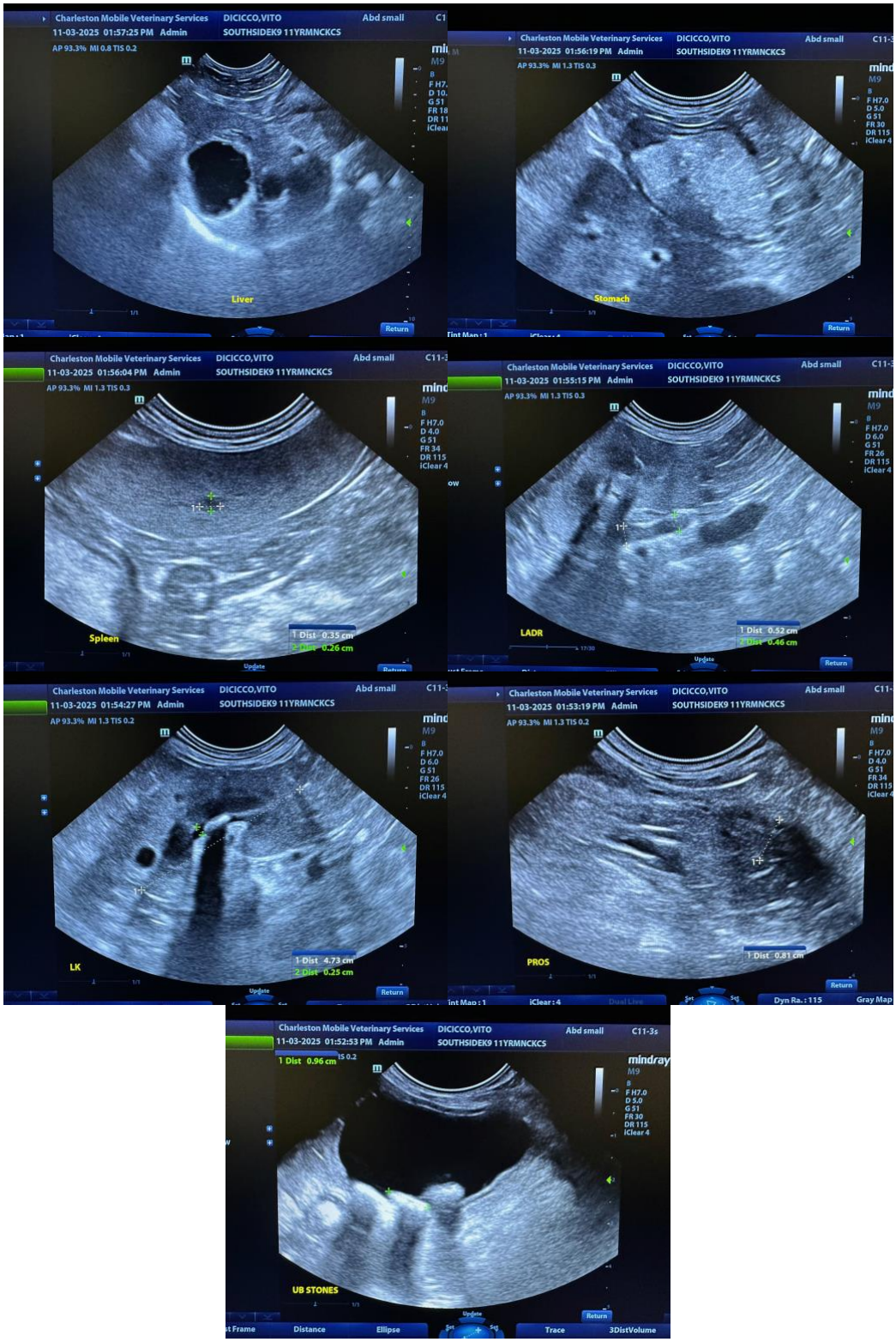

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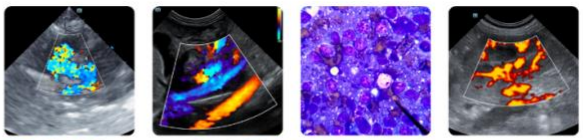

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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