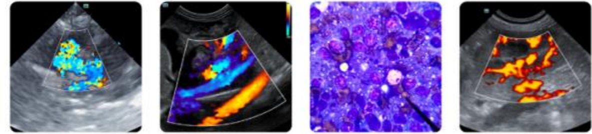


PATIENT
Murphy Kunerth

SPECIES
Canine

BREED
Pembroke Welsh Corgi

SEX
Neutered Male

AGE
12

WEIGHT
10.5 kg

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

IMAGING PERFORMED BY
Harmon

HOSPITAL NAME
Wilvet South

REFERRING VET
Harmon

INVOICE
22472

DATE
1-29-26

PRESENTING CLINICAL SIGNS

History: Presented for DKA on 1/28. Multi year history of DM with multiple months of difficulty of adequate glycemic control with adjustments to BID insulin therapy with lots of nadirs in normal glucose range and spikes greater than 350.
Hyperglycemia, mild ketonemia, hypokalemia, hypochloremia, and mild azotemia on intake for hospitalization. UTI (cocci) identified on UA.
Initiated Unasyn 30mg/kg IV q8 and IV fluid therapy to address electrolyte derangement at a 2X maintenance. Recheck renal values after 15h of fluid therapy revealed worsening of azotemia. FAST scan overall unremarkable during first 24h workup. Some scan retroperitoneal free fluid noted on US scan. Slight increase in weight during intake (Approx 1.5lbs / 0.7kg). No evidence of pulmonary fluid overload.
Diagnostic ultrasound pursued in attempt to assess pancreatic changes and possible causes of azotemia that has progressed from what was thought to be pre-renal at intake.

Abnormal PE/Chem/CBC/UA Results: POC: pH 7.06, HCO3-5.6(L), PCO2 19.8 (L), Na+ 113(L), K+ 3.0(L), Cl 98(L), BUN 51(H), Crea 1.53(H), Glu 399(H), Hct 46% UA: pH: 6.5, USG 1.020, Glu 100. Ketones 50, WBC 2/hpf, RBC >50/hpf, Bacteria, Chains of cocci (Strep) and clusters (Staph), casts

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System
The urinary bladder wall is normal in thickness. The mucosal surface is smooth. The bladder is distended. A moderate amount of suspended echogenic debris is observed within the lumen. No cystic calculi are observed. The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is normal in size (0.64 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

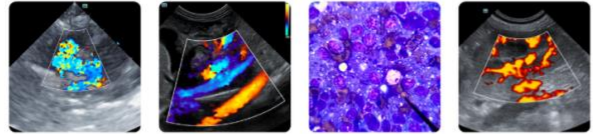
The left kidney is normal in size (6.11 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal-to-mild loss of corticomedullary distinction. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal. Perirenal fat is mildly hyperechoic.

The right kidney is normal in size (6.64 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal-to-mild corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal. Trace subcapsular fluid is present. Perirenal fat is hyperechoic.

Adrenal Glands
The left adrenal gland is normal in size (0.65 cm at cranial pole) (0.67 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 (0.53 cm at cranial pole) (0.67 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 (1.01 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.



PATIENT

Murphy Kunerth

SPECIES

Canine

BREED

Pembroke Welsh Corgi

SEX

Neutered Male

AGE

12

WEIGHT

10.5 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Harmon

HOSPITAL NAME

Wilvet South

REFERRING VET

Harmon

INVOICE

22472

DATE

1-29-26

Liver

The liver is subjectively enlarged, with swollen peripheral contours. The parenchyma is isoechoic-to-hyperechoic relative to the spleen. A 1.1 cm hyperechoic nodule is observed on the right side. The remaining parenchyma is homogenous. 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 is moderately distended. The wall is slightly thickened (up to 0.21 cm) and hypoechoic. A small-to-moderate amount of echogenic debris is observed within the lumen (some of which is gravity-dependent, some of which is suspended). The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is mildly-to-moderately fluid-distended. The gastric wall is diffusely thickened (up to 0.79 cm) with retention of the normal layering pattern. The pyloric 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.

Pancreas

The base and limbs of the pancreas are visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic 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

Trace free fluid is observed.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Minor bilateral age-related renal changes with evidence of inflammation/retroperitonitis. The inflammation may be secondary to pyelonephritis, interstitial nephritis, neoplasia, other. The trace left pyelectasia may be secondary to parenchymal remodeling, pyelonephritis, PU/PD, fluid therapy, or some combination thereof.

- The gastric wall changes are most consistent with gastritis with a lower possibility of emerging neoplasia.

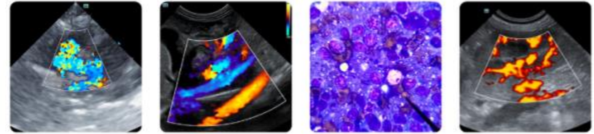
- The gallbladder wall changes could be consistent with edema, secondary to increased hydrostatic pressure, low oncotic pressure, cholecystitis, anaphylaxis (less likely), other. Gallbladder debris, non-mucocele.

Secondary Findings

- The hepatic changes are most consistent with a diabetic hepatopathy, with a lower possibility of inflammatory disease, infiltrative neoplasia, or other hepatopathy. Correlation with the patient's liver values is recommended. The hyperechoic hepatic nodule trends toward the benign (i.e., myelolipoma, regenerative nodule) with a lower possibility of more insidious splenic pathology.

SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™

SonoPath.com info@sonopath.com 1.800.838.4268



Clinical Sonography & Telecytology
Educational Teleconsultation Services™

PATIENT

Murphy Kunerth

SPECIES

Canine

BREED

Pembroke Welsh Corgi

SEX

Neutered Male

AGE

12

WEIGHT

10.5 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Harmon

HOSPITAL NAME

Wilvet South

REFERRING VET

Harmon

INVOICE

22472

DATE

1-29-26

- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

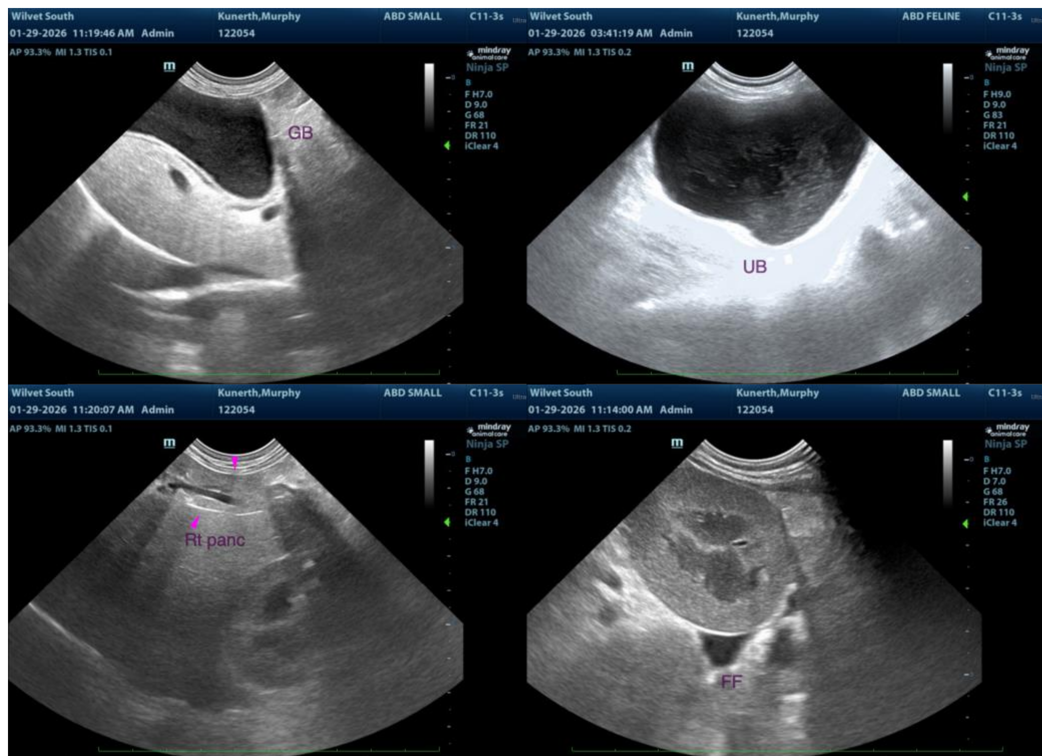
- Urinary bladder debris

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the worsening azotemia, consider the following:

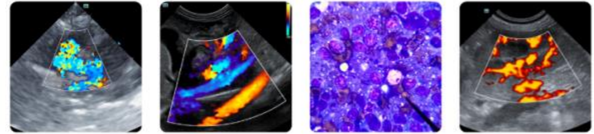
  1. Urine culture and sensitivity
  2. UPC if proteinuria is present in the absence of infection
  3. A resting cortisol level to screen for hypoadrenocorticism. If resting cortisol level is < 2.0 mcg/dL, an ACTH stimulation test is recommended.
  4. Baseline blood pressure measurement
  5. Also consider three-view thoracic radiographs to assess cardiopulmonary status.
  6. IV fluid therapy and continued supportive care, with close monitoring of patient's renal values to assess progression

- Supportive care for diabetic ketoacidosis is also recommended.



SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™

SonoPath.com info@sonopath.com 1.800.838.4268



Clinical Sonography & Telecytology

Educational Teleconsultation Services™

PATIENT

Murphy Kunerth

SPECIES

Canine

BREED

Pembroke Welsh Corgi

SEX

Neutered Male

AGE

12

WEIGHT

10.5 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Harmon

HOSPITAL NAME

Wilvet South

REFERRING VET

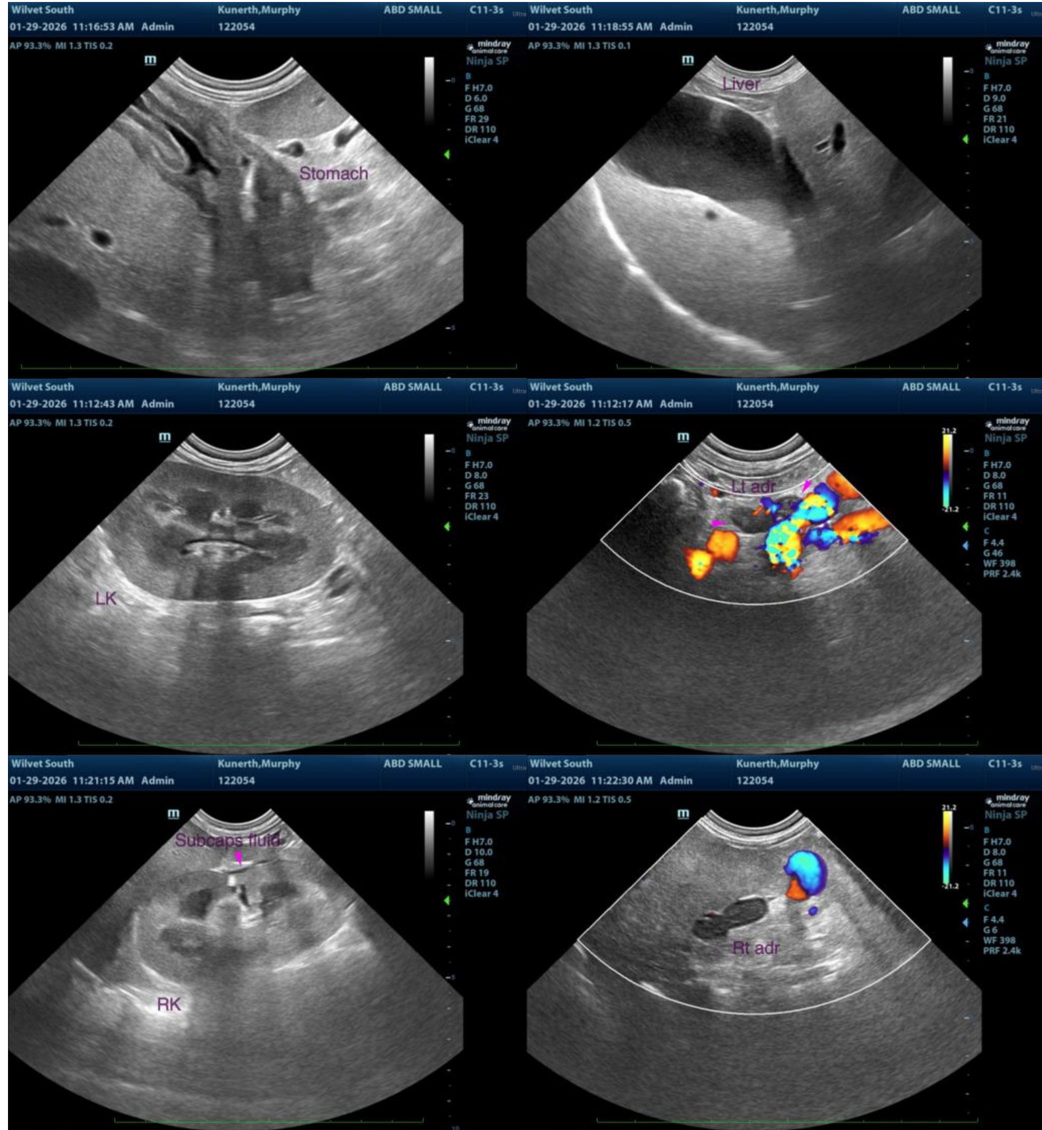
Harmon

INVOICE

22472

DATE

1-29-26



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