

**DATE PRESENTING CLINICAL SIGNS**

2/10/23 Bella presented yesterday for increased thirst and urination for the past few weeks. Otherwise her behaviors are normal at home. Physical examination revealed weight loss of 7 lbs since last February, an old aural hematoma and no other abnormalities.

PATIENT

Bella Roth

Current Medications: None listed.

SPECIES

Canine

Lab Results: CHEMISTRY: BUN 60 (HIGH) 6-31 mg/dL, Creatinine 4.0 (HIGH) 0.5-1.6 mg/dL, SDMA 38.6 (HIGH) <14.0 UG/dL, PHOSPHORUS 5.6 2.5-6.0 mg/dL, POTASSIUM 5.7 (HIGH) 3.6-5.5 mEq/, CHOLESTEROL 452 (HIGH) 92-324 mg/dL, AMYLASE 1,205 (HIGH) 290-1,125 IU/L. URINALYSIS:

BREED

Golden Retriever

Cystocentesis USG: 1.016

Protein 3+ (HIGH) NEGATIVE, Occult Blood 1+ (HIGH), Bacteria Rods >100 (HIGH)

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: STAT requested.

Imaging Performed By: Rachel Brillhart, RDMS.

SEX

Spayed Female

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**AGE**

2/18/13

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

WEIGHT

68 Pounds

The left kidney has a normal shape and size (6.38 cm) with pyelectasia at 0.48 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

Kathleen Sennello DVM,
MS, Diplomate ACVIM
(Small Animal Internal
Medicine)

The right kidney has a normal shape and size (5.18 cm) with significant pyelectasia present, with the renal pelvis measuring 0.62 cm, and the adjacent medulla appears slightly irregular and hyperechoic. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

HOSPITAL NAME

Bel Air Vet Hospital

Adrenal Glands

The left adrenal gland is normal in size measuring 0.78 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

REFERRING VET

Dr. Young

The right adrenal gland is normal in size measuring 0.53 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

INVOICE

45016

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. There are two hypoechoic cystic structures visualized on the left side of the liver, measuring 0.71 cm and 0.52 cm.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measures 0.35 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

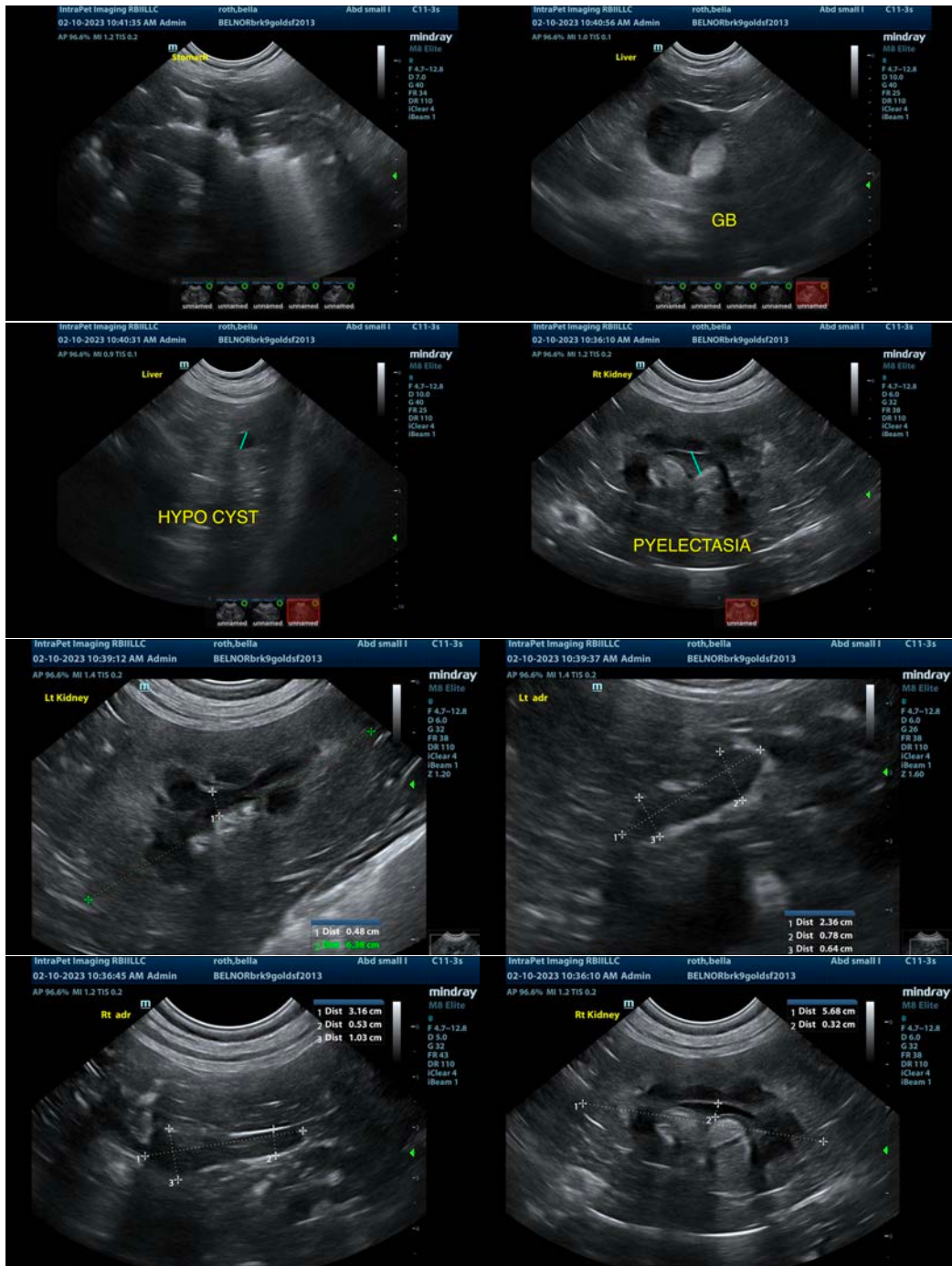
ULTRASONOGRAPHIC FINDINGS

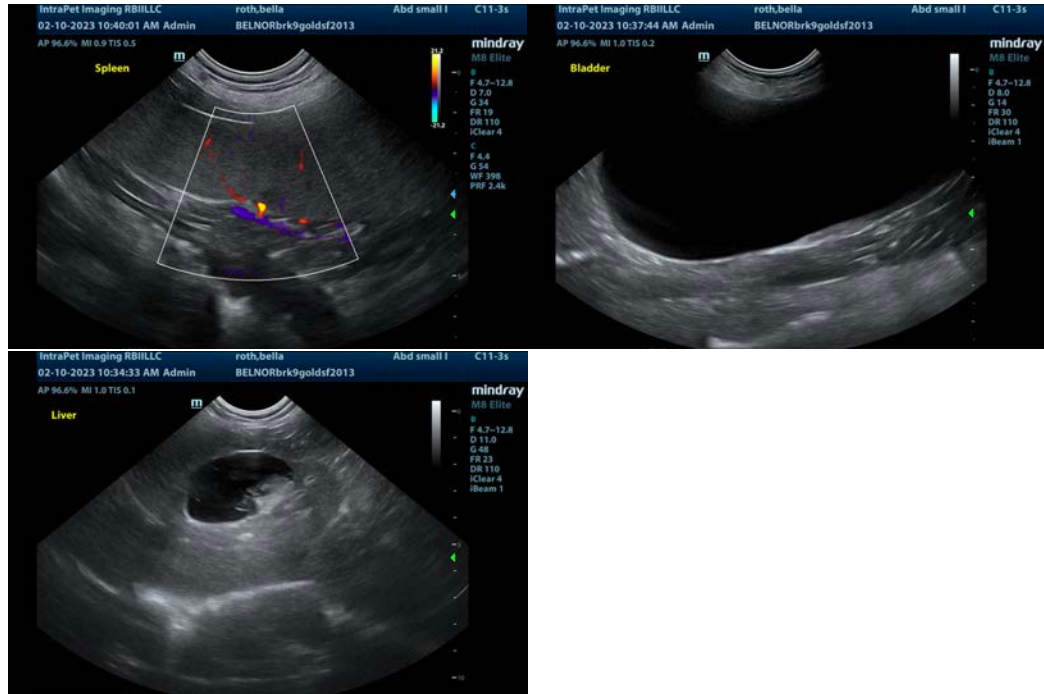
- Decreased corticomedullary distinction in both kidneys with bilateral pyelectasia – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.
- Hypoechoic structures visualized within the hepatic parenchyma – Findings are most consistent with benign hepatic cysts. Recommend continued monitoring.
- Moderate gallbladder debris – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Both kidneys appear to have decreased corticomedullary distinction and pyelectasia present. No obvious obstructive process is present. Consider a urinalysis and culture as well as a blood pressure evaluation. Given the significant bacteriuria and the urine sample submitted, these findings could be consistent with pyelonephritis. Consider treatment based on culture and sensitivity results as well as a reculture on antibiotics in two weeks and a protracted duration of treatment and reculture one week post cessation of antibiotics.

Additionally, this patient may benefit from diuresis and symptomatic treatment for uremia. Additionally, screening Leptospirosis titers should be considered. It is unknown if this patient has chronic renal disease and a possible recent exacerbation or if this is acute renal disease, but I suspect there is a chronic component.





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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)
kathleen.sennello@sonopath.com