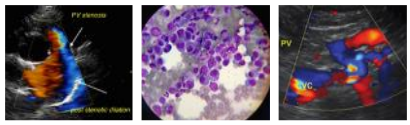
IMAGING PERFORMED BY

IntraPet.com



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**DATE**
7/15/22

**PATIENT**
Oliver Walsh

**SPECIES**
Canine

**BREED**
Mixed Breed

**SEX**
MI

**AGE**
3/15/22

**WEIGHT**
15.8 lbs.

**INTERPRETED BY**
Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)

**HOSPITAL NAME**
Timonium AH

**REFERRING VET**
Dr. Montessi.

**INVOICE**
14301

## PRESENTING CLINICAL SIGNS

1 day hx of V+, lethargy. PE- discomfort on cranial abdominal palpation
Ab rads- subjectively enlarged kidneys. AFAST- scant effusion per-renally. Elevated renal values: Cre 9.1, BUN >130, Phos 12.9, Anemia, non-regenerative: HCT 31%, RBCs 5.0

Current Medications: None.
Lab Results: Elevated renal values: Cre 9.1, BUN >130, Phos 12.9
Anemia, non-regenerative: HCT 31%, RBCs 5.0
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

Imaging Performed By: Andi Parkinson, BS, RDMS.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder is minimally distended with anechoic urine. The bladder wall appears slightly thickened and irregular. No calculi or mass lesions are visualized. The area of the trigone, ureteral papillae and proximal urethral appear free of any stones or mass lesions. Findings are most consistent with lack of urine distention +/- cystitis.

The visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

The left kidney has a normal shape and size (6.07 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. A moderate amount of perinephric Inflammation and fluid was present. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (6.72 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. A moderate amount of perinephric Inflammation and fluid was present. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

### *Adrenal Glands*

The left adrenal gland is normal in size measuring 0.61 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.

The right adrenal gland is normal in size measuring 0.47 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.

### *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 appear 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. No focal nodules or cystic lesions are observed. The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. 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. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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 prominent and hypoechoic as compared to the surrounding isoechoic 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

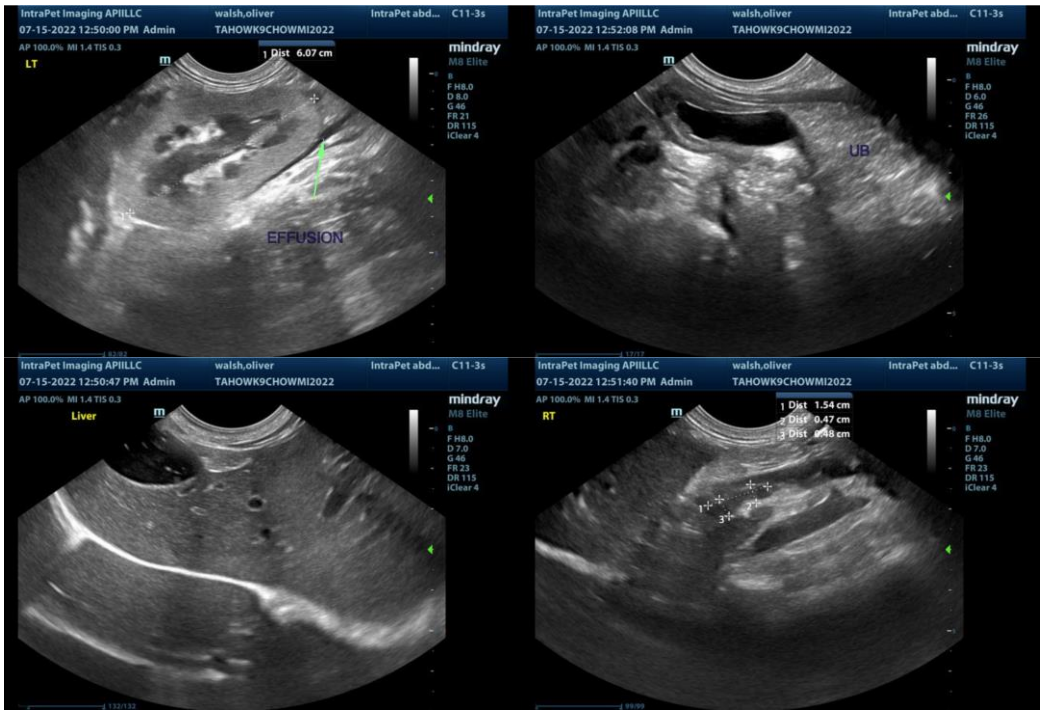
### *Primary Findings*

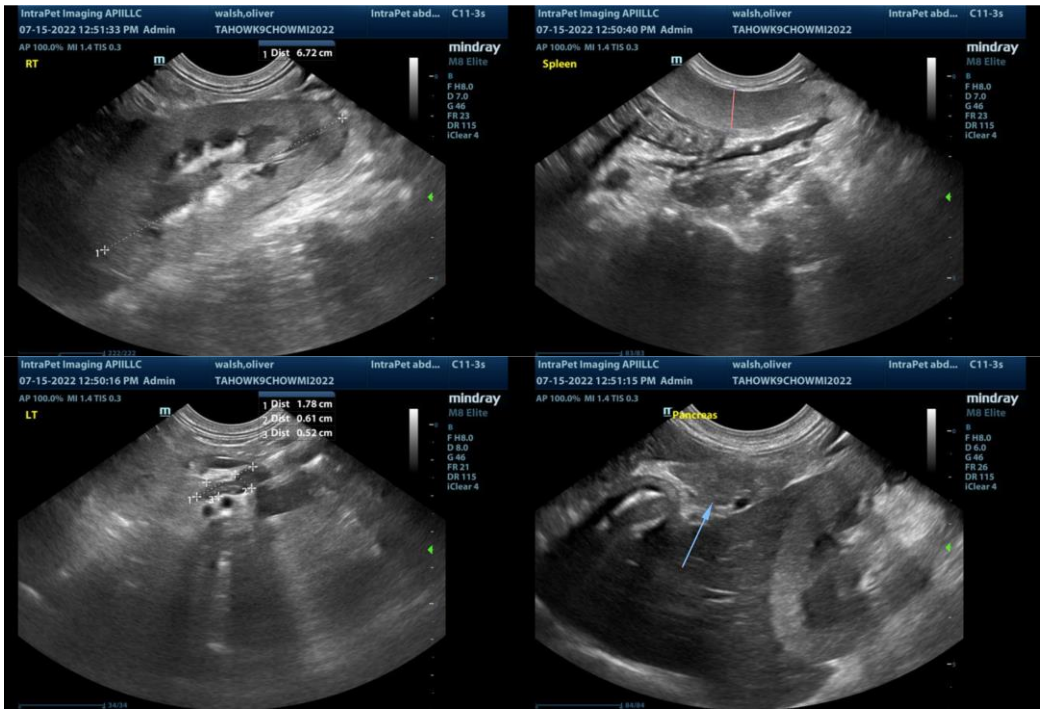
- Minimally urine distended bladder with subjectively thickened wall - Findings are most consistent with lack of urine distention +/- cystitis. Recommend urinalysis and culture.
- Bilateral perinephric inflammation and fluid - Fluid such as this can accumulate from trauma, acute kidney injury (nephrotoxicity, Leptospirosis, ureteral obstruction, interstitial nephritis, etc.,)
- Hypoechoic prominent pancreas - The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Based on the history provided, it's suspected that this puppy is in acute renal failure. Likely differentials in a dog of this age would include; Leptospirosis, toxicity, exacerbation of renal dysplasia, and pyelonephritis. Recommend blood pressure evaluation, urinalysis, and culture, as well as a PCR for Leptospirosis (if the patient has not been on antibiotics yet), serology (if the patient has already been on antibiotics), and empirical treatment with injectable Ampicillin (or similar.)

The urinary bladder is minimally distended. This is concerning unless the patient has recently urinated. If there is question as to urine output, recommend placing an indwelling system to determine urine production. A primary non-renal differential for perinephric effusion would be fluid overload secondary to anuric renal failure.






**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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