

**DATE PRESENTING CLINICAL SIGNS**

2/10/23 Bloated abdomen, anorexia x2days. History of kidney and heart failure as well as chiara syndrome.

**PATIENT**

Fredo Loehr

Current Medications: SQ fluids 5xs a week, started Cerenia 24 mg QD today, Gabapentin 100 mg BID, Naraquin 1 BID Mirtazapine 15mg 1/4 QD Dasuquin Adv Azodyl 1 QD Rena Plus BID.

Lab Results: Pending.

Radiographs:

**SPECIES**

Canine

Date of Previous IntraPet Ultrasound:

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Stephanie Pearce RDCS, RVT.

**BREED**

Cavalier King Charles

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****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.

**SEX**

Neutered Male

**AGE**

2013

The prostate is normal in size (0.58 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

**WEIGHT**

26.8 Pounds

The left kidney is normal in size (4.63 cm) but irregular in shape, likely due to previous infarcts, with mild pyelectasia at 0.38 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 or hydroureter. Renal vasculature is normal.

**INTERPRETED BY**

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

The right kidney is normal in size (4.48 cm) but irregular in shape, likely due to previous infarcts, with mild pyelectasia at 0.37 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 or hydroureter. Renal vasculature is normal.

**HOSPITAL NAME**

Chadwell AH

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.73 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. Gold

The right adrenal gland is normal in size measuring 0.61 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**

45059

**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. There is a very small hypoechoic nodule visualized near the hilus of the spleen measuring 0.59 cm x 0.38 cm.

**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 gall bladder lumen is significantly distended. Some areas of the wall appear mildly thickened with adherent debris. There is a large amount of primarily non-organized echogenic debris. There is no evidence of bile duct dilation.

### ***Gastrointestinal***

The stomach is moderately dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering 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 0.26 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 prominent and mottled 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**

- Decreased corticomedullary distinction in both kidneys with evidence of previous infarcts and bilateral pyelectasia – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the kidney(s) could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.
- Small hypoechoic nodule visualized in the spleen – There is a non-cavitated, hypoechoic splenic nodule visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- Prominent, mottled right limb of the pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Distended gallbladder with large volume of intraluminal material – A large amount of debris is evident in the gall bladder with no evidence of a mucocele or associated inflammation at this time. This could represent an early mucocele or cholestasis, with minimal evidence of associated inflammation at this time. Continued monitoring of labwork and ultrasound are warranted for progression of this lesion. Ursodiol therapy could be considered.
- Moderate to large amount of shadowing ingesta within the gastric lumen – Correlate with the feeding history and abdominal radiographs. If the patient was adequately fasted consider such

differentials as delayed gastric emptying, a partial outflow tract obstruction (none seen) or ingested foreign material.

### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

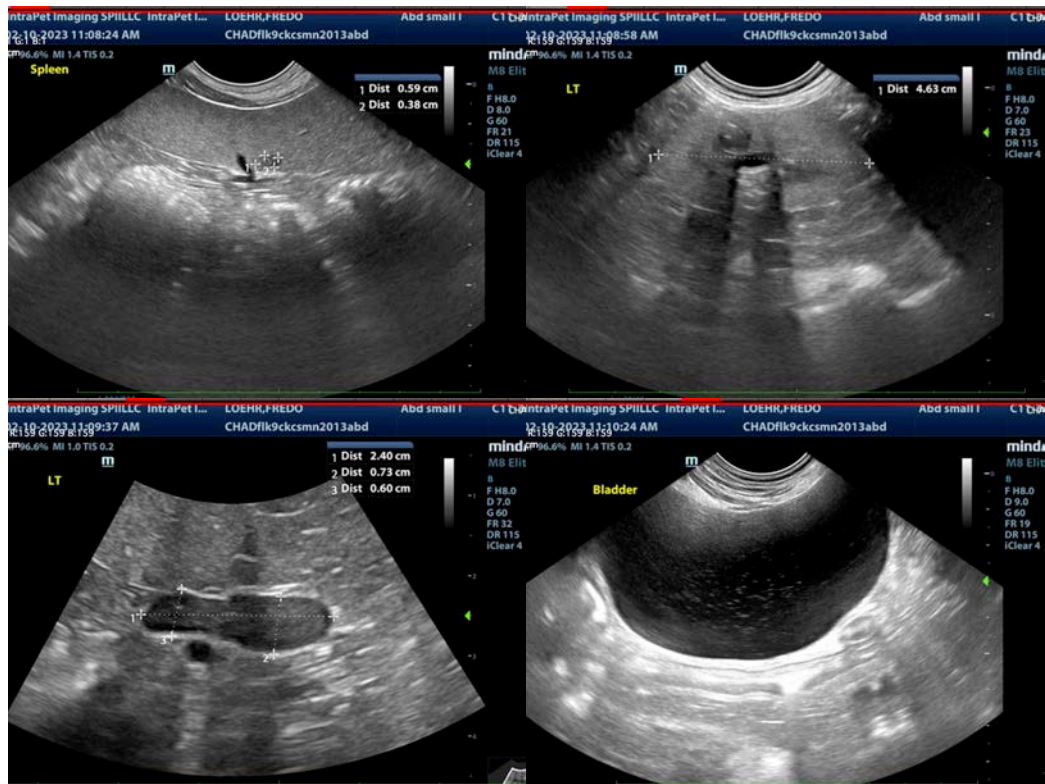
There is no free fluid visualized or obvious source for the abdominal distention reported. The pancreas is somewhat prominent. This could be consistent with current mild inflammation or previous episodes of inflammation. Correlate this with the possibility of GI signs, abdominal pain, and a quantitative PLI measurement. If appropriate, treatment for pancreatitis could be instituted.

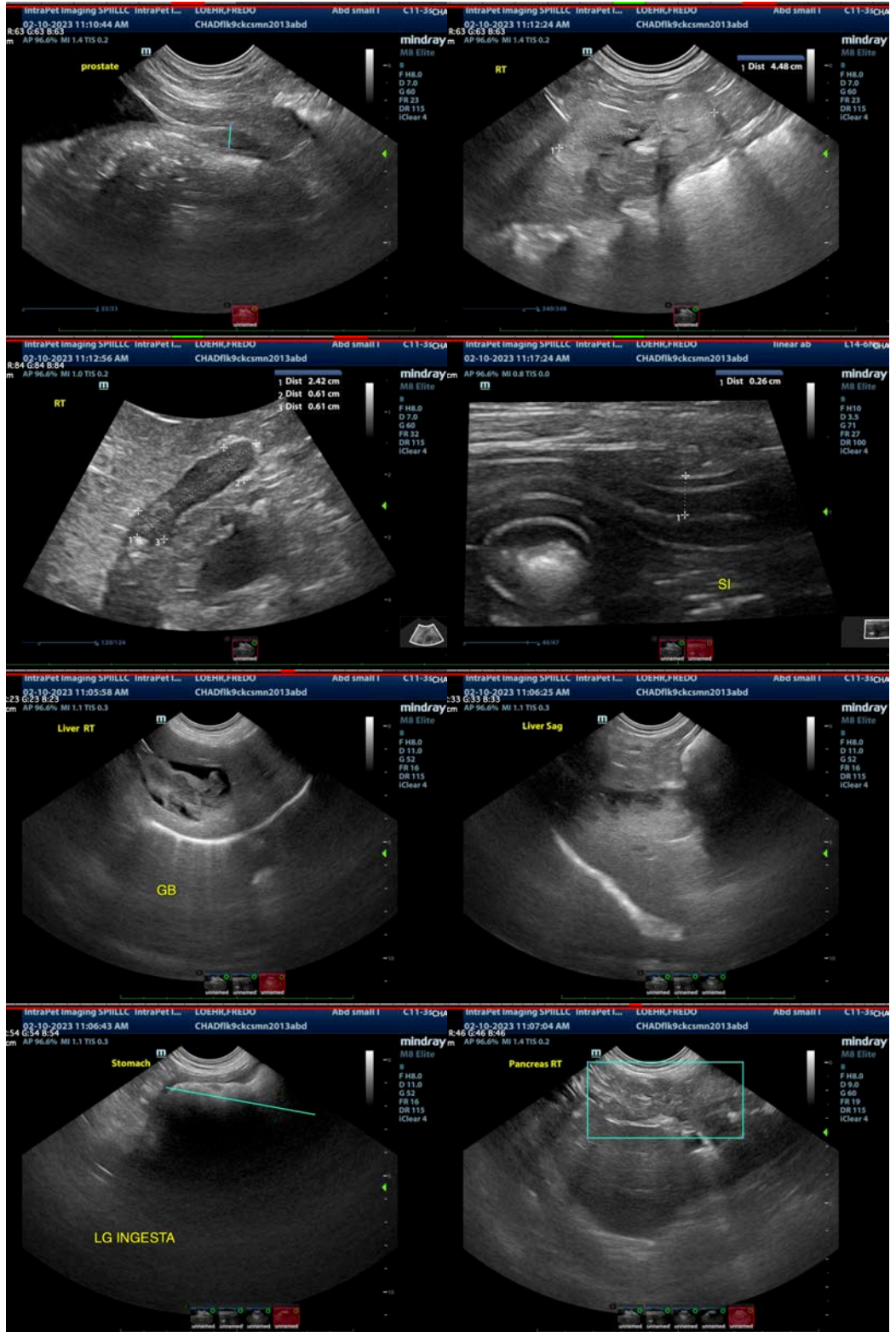
Additionally, there is a large amount of debris in the gallbladder. There is no obvious evidence of gallbladder wall thickening/disease and no surrounding inflammation. Recommend starting chronic Ursodiol therapy and continued monitoring of the liver enzymes and the gallbladder with ultrasound, particularly if abdominal pain develops.

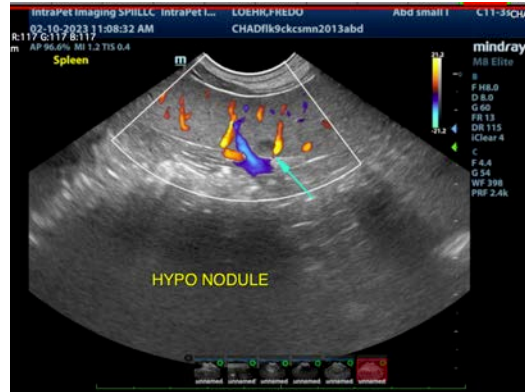
Both kidneys are irregular with significantly decreased corticomedullary distinction and pyelectasia. These findings are likely most consistent with age related renal disease. Recommend a blood pressure, urinalysis and culture as a baseline.

There is a very small hypoechoic splenic nodule that I suspect is too small to sample. Recommend continued monitoring with ultrasound (recheck in 3 months).

If this patient is due for a cardiac recheck, consider 3-view thoracic radiographs and an echocardiogram.







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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