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Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™

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**DATE**

8/23/22

**PATIENT**

Missy Yermal

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

8/22/12

**WEIGHT**

7.4 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING  
PERFORMED BY**

Rachel Brilhart RDMS

**HOSPITAL NAME**

Animal Emergency  
Hospital

**REFERRING VET**

Dr. Thompson

**INVOICE**

40680

**PRESENTING CLINICAL SIGNS**

Missy is a 10 y/o FS DSH who was referred for continued care - not interested in eating specific diet foods - eating less - 2 days ago started urinating on carpet - stopped eating, 2 days ago, drinking less - decreased eating prior - indoor only - felv/fiv unsure status believe was tested - no C/S/D - Saturday vomiting white foam couples in one day, once yesterday - UTD vx - hx- elevated kidney values December started on diet Medications: - none, preventative none RDVM BW: 8/22 Bun >130 Crea 13.3, Phos 15.4, Chol 294, Na 167, Increased amylase RDVM BW 12/22: BUN 50, Crea 3.2

Current Medications: Buprenorphine, Ondansetron, Gabapentin, Protonix, Cerenia.  
Lab Results: See attached.

Date of Previous IntraPet Ultrasound: No previous.  
Sedation: Not required to complete full diagnostic ultrasound.  
Stat Report: Not requested.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal.

The **kidneys** presented multiple infarcts and multifocal cortical collapse. Pyelectasia noted in the left kidney. Left kidney measured 2.82 cm with pyelectasia of 0.27 cm. Chronic interstitial nephrosis pattern and areas of mineralization noted. The right kidney measured 3.19 with pyelectasia of 0.41 cm. Pelvic calculus noted in the right kidney at 0.54 cm. Dystrophic changes noted in both kidneys. The left kidney appeared worse than the right. Blood flow to the kidneys was subnormal on color flow assessment.

**Adrenal Glands**

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.40 cm. The right adrenal gland measured 0.49 cm.

**Spleen**

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

**Liver**

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident. Slight free fluid noted between the liver lobes. Hepatic veins were slightly dilated.

**Gastrointestinal**

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated

normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

### **Pancreas**

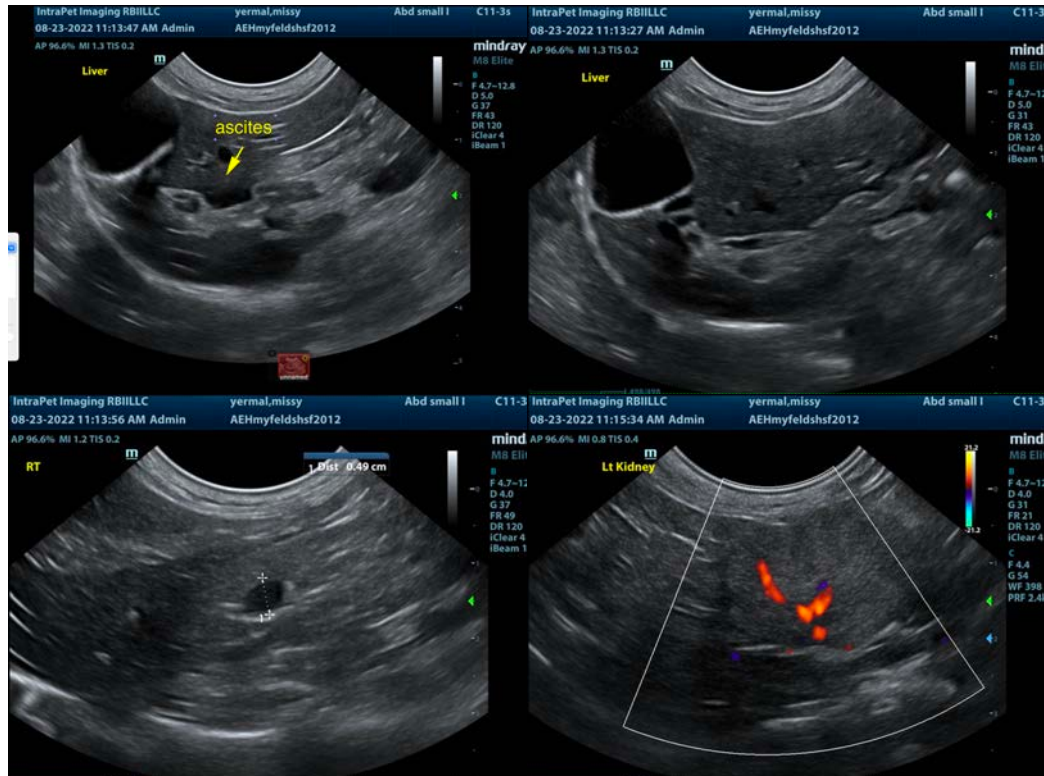
The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. Mild dilated duct at 0.15 cm. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxyphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

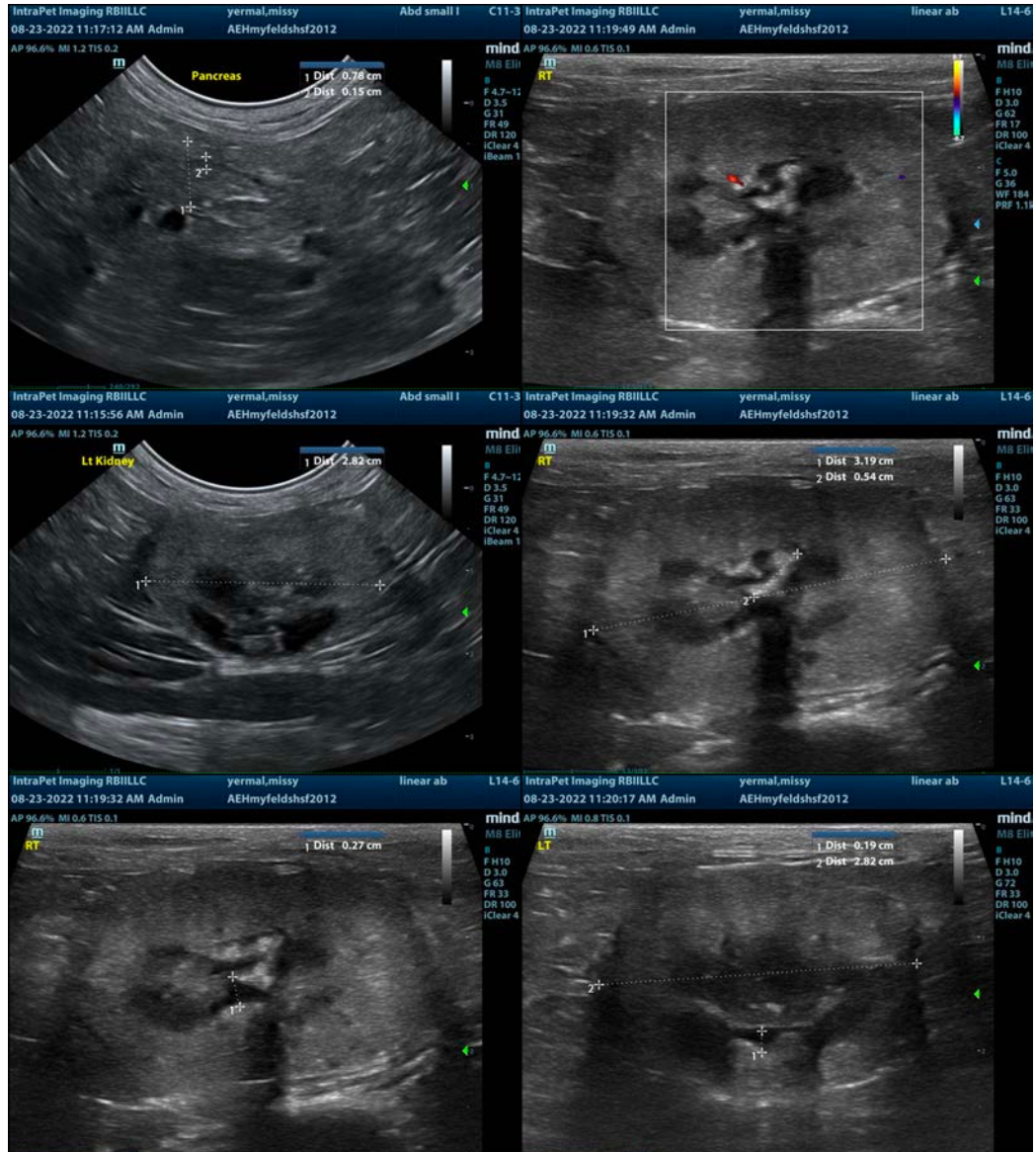
### **ULTRASONOGRAPHIC FINDINGS**

- Moderate to severe renal dystrophy, interstitial nephrosis pattern with pyelectasia and mineralization
- Slight free fluid between liver lobes and dilated hepatic veins

### **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The patient is likely passing calculi periodically with secondary infarcts and underlying chronic interstitial nephrosis. Fluid support protocol should be reassessed regarding volumes if the patient is on IV fluid therapy, as over circulation may be an issue. Prognosis is guarded depending upon response to therapy. However, subjectively the kidneys appear near end stage. Complicating factors such as hypertension, occult UTI, periodic obstructive nephrolithiasis and infarcts all playing a role, yet no obstructive disease noted at this time.





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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