



**PATIENT**

Gracie Kate Holbrook

**SPECIES**

Canine

**BREED**

Bichon

**SEX**

Spayed Female

**AGE**

13 Years

**WEIGHT**

7.6 kg

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING  
PERFORMED BY**

Dr. Massa

**HOSPITAL NAME**

Animal Emergency  
Hospital Volusia

**REFERRING VET**

Dr. Massa

**INVOICE**

16475

**DATE**

7/3/22

**PRESENTING CLINICAL SIGNS**

History: Gracie Kate is a 13y FS Bichon presenting for dark/tarry stools. The patient has had dark/tarry stools for a few days (potentially longer but O unsure). Today, stools were soft/diarrhea-like and patient also did not eat today. No vomiting noted. P was diagnosed with CHF ~1 year ago and is currently on multiple medications. Has also had a history of kidney stones per O. Currently taking Pimobendan, Furosemide, Famotidine, Temaril-P

Abnormal PE/Chem/CBC/UA Results: PE: pale/tacky, mild dental tartar, grade 5/6 L apical systolic murmur, tense abdomen, minimal stool on rectal with coffee ground appearance Gastroenterocolitis, cardiomegaly, hepatomegaly, renal mineralization noted on radiographs CBC: mild neutrophilia/lymphopenia, moderate anemia COMP: BUN too high to read, Creat 2.7, Phos 10.3, mild hyperglycemia, moderate inc ALP BUN (diluted): 153.9 EPOC: moderate metabolic acidosis/anemia, mild hypokalemia/hyperlactatemia/hyperglycemia, BUN too high to read, Creat 3.45 PCV/TS: 21%, 7.0 g/dL UA: USG 1.012, trace proteins, pH 5.0, NSF on sediment Fecal: giardia positive, no other parasites noted Saline agglutination: negative

**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 moderate degenerative changes with relatively normal size and slight irregular contour. Corticomedullary mineralization and a moderate amount of cortical remodeling were present. This presentation is most consistent with acute on chronic renal disease. Slight pyelectasia was noted in both kidneys. The left kidney measured 5.0 cm. The right kidney measured 5.0 cm.

**Adrenal Glands**

The **adrenal glands** were not visualized. Screening for concurrent Addisons as a comorbidity is recommended.

**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** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. The liver presented moderate coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia.



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**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. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

**ULTRASONOGRAPHIC FINDINGS**

- Moderate to near end-stage degenerative renal disease with nonobstructive nephrolithiasis and slight pyelectasia in both kidneys as well
- Hepatopathy

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Complicating factors such as occult Addisons, acute insult such as Leptospirosis, UTI, hypertension, pre-renal disease should all be considered. 72-hour IV fluid protocol is recommended and reassessment of the azotemia and GI protectant protocol (to cover for potential ulcerative disease, even though none were overtly evident) are also indicated. The patient may have passed a calculus recently, inducing the current state, however, no obstructive disease is noted at this time.





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Gracie Kate Holbrook

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**SPECIES**

Canine

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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Bichon

**Eric Lindquist**, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com  
info@SonoPath.com

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