



**PATIENT**

Benny martin

**SPECIES**

Canine

**BREED**

Yorkie Mix

**SEX**

Neutered male

**AGE**

11 years

**WEIGHT**

5.4 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**

40200

**DATE**

10/21/22

**PRESENTING CLINICAL SIGNS**

History: PP for eval of no improvement after dx of panc at rDVM. NI in food. Suspect HHS  
Abnormal PE/Chem/CBC/UA Results: ALP 441 Amyl, BUN, CREA PHOS all too high to read BG  
>700 Moderate acidosis

**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 was noted. Ureteral papillae were normal.

The **kidneys** revealed mild to moderate increased cortical echogenicity and slight pyelectasia. The corticomedullary definition was largely maintained. Occasional cortical cyst was noted in both kidneys. The kidneys measured 4.0 cm.

**Adrenal Glands**

The regions of both **adrenal glands** were imaged with no evidence of pathology.

**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 was 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 hepatic veins were dilated, yet this may be owing to fluid support if the patient's on IV fluids. The gallbladder is mildly over distended with some striating and dependent bile. This is consistent with emerging mucocele. The cystic duct revealed echogenic debris was well.

**Gastrointestinal**

The gallbladder in this patient was mildly over distended with largely suspended and dependent debris. Subjectively this is most consistent with emerging mucocele. There was no evidence of inflammation noted at this time. Ursodiol therapy is recommended. A recheck ultrasound is recommended in 6 weeks. This is not likely causing overt clinical signs.



**PATIENT**

**Pancreas**

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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. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

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**ULTRASONOGRAPHIC FINDINGS**

Non-specific, mild to moderate chronic renal changes. Acute on chronic renal insult is suspected.

**SEX**

Neutered male

Emerging gallbladder mucocele. Not likely the primary clinical issue.

Gastroenteritis.

**AGE**

11 years

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Leptospirosis or similar should be considered. Screening for underlying Addison's is indicated as the adrenal glands were not overtly visualized. Leptospirosis titers and assessment for acute renal insult, toxin or infectious agents is suspected. 72-hour IV fluid protocol, blood pressure measurements, urine culture, Leptospirosis titers, baseline cortisol or ACTH stimulation is all indicated. Ursodiol therapy is recommended over the next 6-8 weeks if the patient is able to be stabilized for renal failure.

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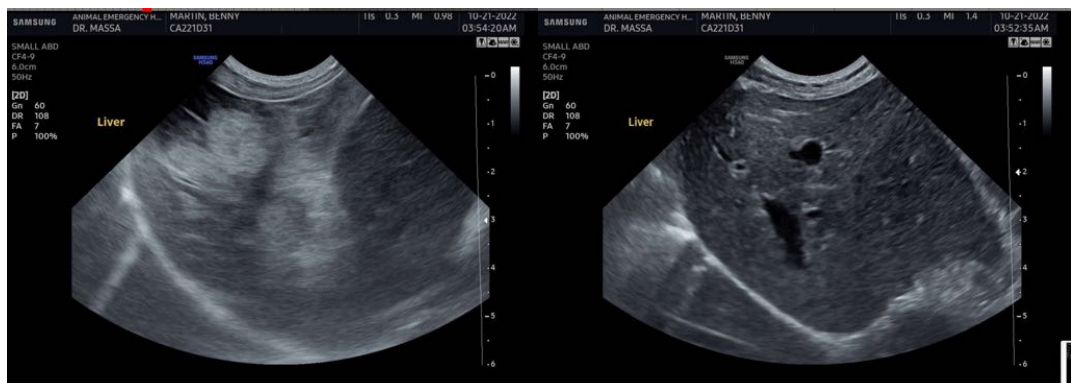
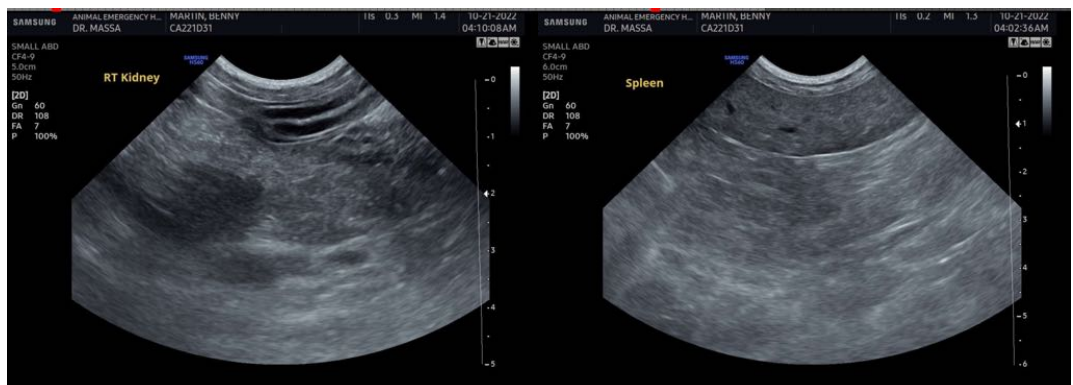
Dr. Massa

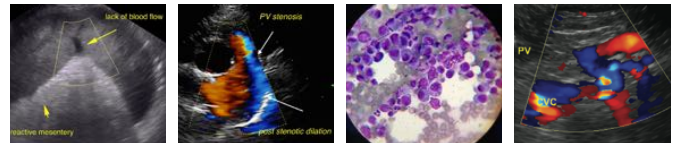
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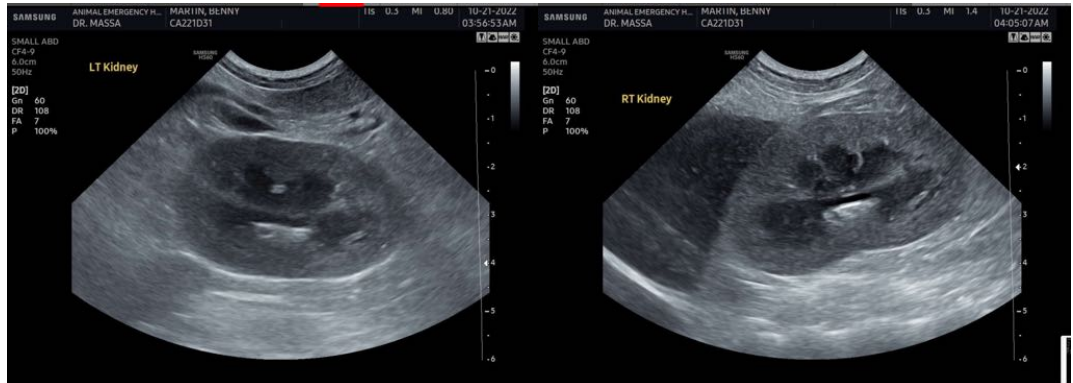
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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