

**PATIENT PRESENTING CLINICAL SIGNS**

**Cargo Fiorillo** losing weight after going up flight of stairs P fell over and rDVM rec ultrasound/ECG rDVM found murmur (G 4-5/6) and said P may have leaky mitral valve/fluid buildup P not eating much; became picky eater after starting medications. furosemide 20mg 1 tab BID, digoxin 1.5 capsules. Grade 4-5/6 heart murmur.

**SPECIES**

Canine

**BREED**

Shih Tzu X

Abnormal PE/Chem/CBC/UA Results: Please read attached ECG. October 1st: increased ALT (279), ALP (1779), Alb (47g/L), BUN (17.3mmol/L), Glucose (6.6mmol/L) October 14th: increased RBC, HGB, HCT, Creat (283mmol/L), BUN (39.7mmol/L), Phos (2.6 mmol), ALT (176), ALP(1143) rDVM did 2 xrays: enlarged liver, enlarged L side of heart, gastroenteritis, segmented intest ileus, distended stomach w/ food/gas

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**SEX**

Neutered Male

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Primarily anechoic content with minor dependent luminal mineral. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

**AGE**

14 Years

The area of the residual prostate appeared normal and free of pathology.

**WEIGHT**

7.4 kg

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The kidneys measured 4.3 cm each.

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

**Adrenal Glands**

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 1.9 cm long x 0.46 cm at the caudal pole.

**IMAGING PERFORMED BY**

Crystal Hill

The right adrenal gland was indistinctly visualized yet without overt pathology, subjectively measuring 1.4 cm long x 0.48 cm at the caudal pole.

**Spleen**

**HOSPITAL NAME**

BPH Burlington

The spleen exhibited potential for mild subnormal size, possibly suggestive of mild volume contraction. Maintained symmetrical capsule contour and finely textured homogeneous parenchyma. No splenic neoplastic criteria.

**REFERRING VET**

Dr. Al-Sultan

**Liver**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non distended in size with mild, echogenic, non-organized debris. No evidence of gallbladder or peripheral gallbladder inflammation. The cystic duct and common bile ducts were normal without evidence of dilation.

**INVOICE**

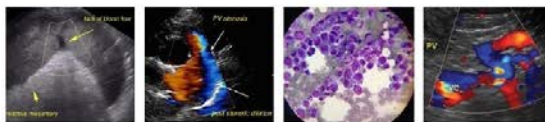
42279

**Gastrointestinal**

**DATE**

10/21/22

The stomach presented intact wall layering with a normal wall layer ratio. The stomach exhibited potential mild gas distention.



**PATIENT**

Cargo Fiorillo

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Subjective mildly increased segmental intestinal gas pattern. No evidence of mechanical or metabolic gastrointestinal ileus. Normal visible colon wall layers were present with apparent formed feces in lumen.

**SPECIES**

Canine

**Pancreas**

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

**BREED**

Shih Tzu X

**Free Abdomen**

No omental masses, lymphadenopathy, or peritoneal free fluid.

**SEX**

Neutered Male

**ULTRASONOGRAPHIC FINDINGS**

- Bilateral moderate chronic renal changes
- Minor dependent urinary bladder luminal mineral
- Benign hepatopathy
- Mild gallbladder debris (non-mucocele)
- Sonographically normal gastrointestinal tract with potential increased gastric and segmental intestinal gas pattern

**AGE**

14 Years

**WEIGHT**

7.4 kg

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Full urinary workup including urinalysis (if not done), screening culture and sensitivity, and baseline UPC recommended.

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The liver was non-specific with considerations including vacuolar hepatopathy and non-obstructive cholestasis, given the ALP elevation and presence of gallbladder debris with potential primary concurrent inflammatory hepatopathy i.e., cholangiohepatitis, given the ALT elevation, or other hepatopathy. No overt hepatic neoplastic criteria, which is considered less likely. Screening hepatic FNA cytology could be considered for further assessment.

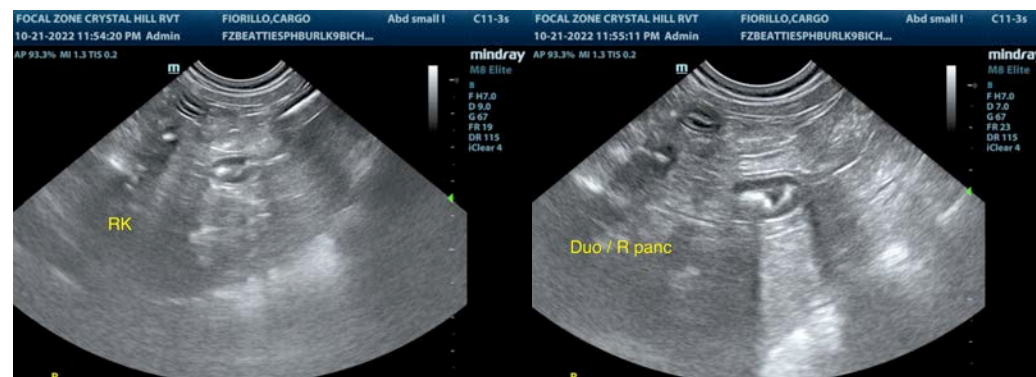
**IMAGING PERFORMED BY**

Crystal Hill

As-needed gastrointestinal support recommended.

**HOSPITAL NAME**

BPH Burlington



**REFERRING VET**

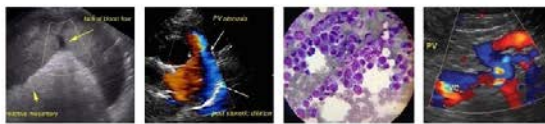
Dr. Al-Sultan

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**PATIENT**

Cargo Fiorillo

**SPECIES**

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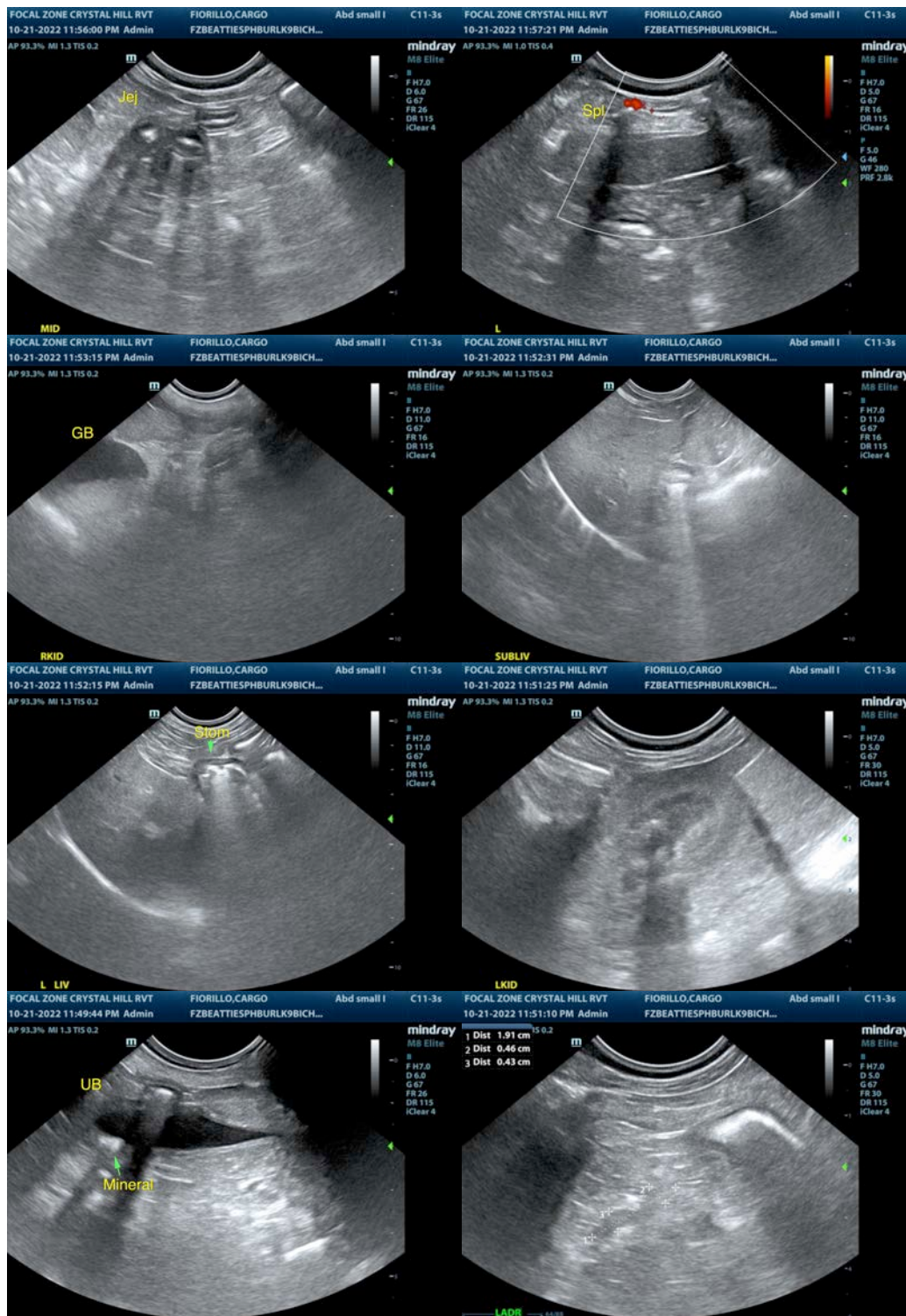
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**PATIENT**

Cargo Fiorillo

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.

**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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**

info@SonoPath.com

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