



**PATIENT PRESENTING CLINICAL SIGNS**

Phoebe Pipe

History: Previous scan 09/21/21. Follow up, was seen at emerg clinic for vomiting.- Transfer from Burlington EVC after multiple days of IVF and supportive care for markedly elevated ALT (>3000) that barely improved with 36 hours of care. - Seems brighter after supportive care, however, recommended to repeat abdominal ultrasound to assess for changes from previous study performed in 2021. metronidazole, pantoprazole, and other IV meds at EVC. Has the liver changed from previous ultrasound? - Will an FNA of possibly cirrhotic liver be of clinical benefit? Or referral for biopsy?

**SPECIES**

Canine

**BREED**

Maltese

**SEX**

Spayed female

**AGE**

8 years

**WEIGHT**

2.2 kg

**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 largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right kidney measured 3.16 cm. The left kidney measured 2.82 cm.

**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 1.35 x 0.5 cm at the caudal pole and 0.39 cm at the cranial pole. The right adrenal gland measured 0.95 x 0.35 cm at the caudal pole and 0.61 cm at the cranial pole.

**Spleen**

The **spleen** revealed a subtle, hypoechoic nodule that measured 0.4 cm.

**Liver**

The **liver** was subnormal in size with mild coarse architecture. Portal vein to vena cava ratio was 1:1 with no evidence of extrahepatic or intrahepatic shunting. The gallbladder and common bile duct were unremarkable.

**Gastrointestinal**

Examination of the **gastrointestinal tract** revealed an unremarkable stomach and small intestine regarding structure. There were minor areas of luminal fluid noted. There was no evidence of

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Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Crystal Hill, RVT

**HOSPITAL NAME**

Glanbrook VS

**REFERRING VET**

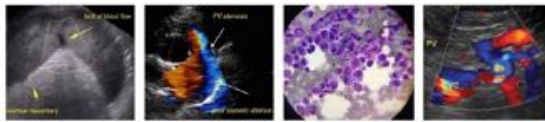
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Phoebe Pipe

obstructive pattern. Curvilinear patterns were retained throughout the gastrointestinal tract. Areas of hyperperistalsis were noted. This is consistent with response to irritation. The colon was unremarkable.

**SPECIES**

**Pancreas**

Canine

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.

**BREED**

Maltese

**ULTRASONOGRAPHIC FINDINGS**

**SEX**

Non-specific gastroenteritis.

Spayed female

Structurally unremarkable liver with microhepatica.

**AGE**

8 years

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**WEIGHT**

2.2 kg

Portal hypoplasia/microvascular dysplasia may be an issue; however, structurally the liver is unremarkable other than minor subnormal size. Acute hepatic insult, Leptospirosis and mushroom toxicity or similar insult should all be considered. Ampicillin, Metronidazole and GI protectants are all indicated along with hepatic nutraceuticals. Hepatic FNA after coagulation panel may be of assistance to assess inflammatory cell type; however, core liver biopsy would help regarding potential for underlying portal hypoplasia/microvascular dysplasia. Acute insult upon underlying parenchymal malformation such as portal hypoplasia./microvascular dysplasia is suspected. There was no evidence of cirrhosis. Bile acid profile is recommended if not already performed.

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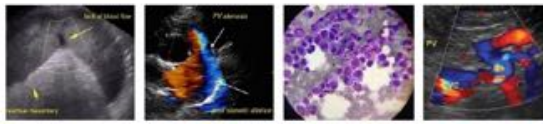
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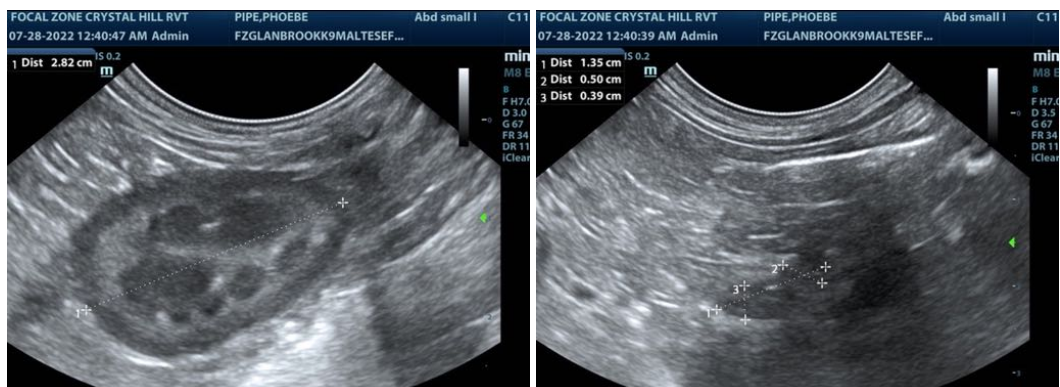
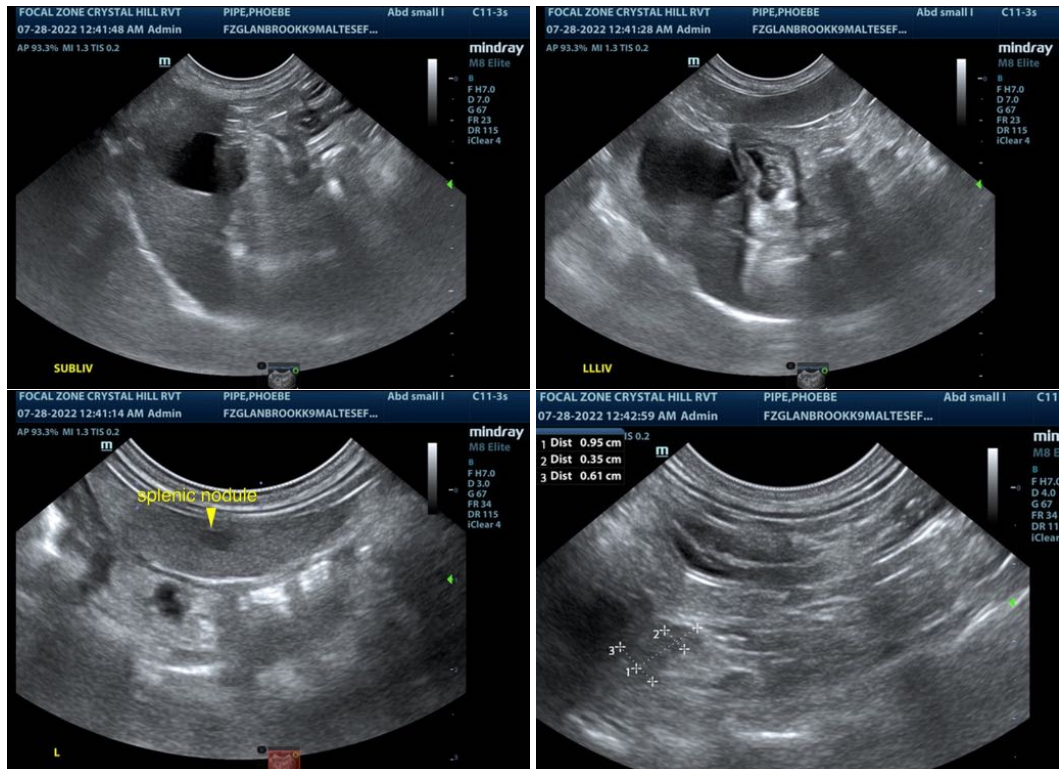
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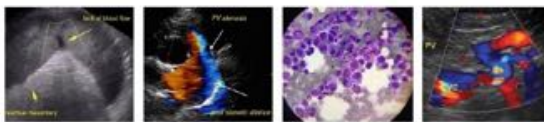
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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