



**PATIENT**

Cuddles Berrios

**SPECIES**

Feline

**BREED**

Domestic Shorthair

**SEX**

Spayed Female

**AGE**

13 years

**WEIGHT**

3.2 lbs

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Shannon Heintz

**HOSPITAL NAME**

Pennsauken AH and  
Urgent Care

**REFERRING VET**

Dr. Heintz

**INVOICE**

30093

**DATE**

5/2/22

**PRESENTING CLINICAL SIGNS**

Cuddles is a 13 YO FS DSH with a history of elevated liver enzymes and bilirubin since 2019. In 2019, an ultrasound revealed by mild hepatomegaly, gall bladder wall thickening, hypoechoic liver nodules, and isoechoic splenic nodules. FNA of the liver revealed neutrophilic inflammation. There have been very little clinical symptoms at home per the owners, besides the occasional vomit episode once a week. Cuddles also have hyperthyroidism that is controlled on methimazole. Cuddles also has a new heart murmur with no obvious heart enlargement on chest x-rays. Abnormal PE/Chem/CBC/UA Results: Most recent blood work revealed an ALT of 408 (12-130U/L), ALP of 152 (14-111U/L), AST of 157 (16-67), bilirubin of 6.0mg/dL (total), unconjugated bilirubin of 2.9 and conjugated bilirubin of 3.8. Remainder of the CBC/chemistry/total T4 was within normal limits. On exam, Cuddles has stage III periodontal disease and a grade II/VI parasternal systolic heart murmur.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The pelvic urethra was imaged 2.0 cm beyond the cystourethral junction. 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 this age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. Slight mineralization was noted. The left kidney measured 3.5 cm. The right kidney measured 3.5 cm with pinpoint mineralization.

**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 right adrenal gland measured 0.4 cm.

**Spleen**

The **spleen** was folded upon itself and irregular. This created a mass type effect; however, this may be a positional anomaly.

**Liver**

The **liver** revealed coarse architecture with a mildly thickened gallbladder. The liver revealed swollen, irregular contour. The contour was swollen and irregular. The common bile duct was at the upper limits of normal at 0.4 cm. The cystic duct was thickened and echogenic.



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**Gastrointestinal**

The **gastrointestinal tract** revealed minor variable thickening and echogenic submucosal changes most consistent with low grade end result of chronic GI disease such as IBD and may be related to malassimilation of nutrients if any weight loss is present. The duodenum was particularly thickened. No obvious neoplastic patterns were noted and luminal content as unremarkable.

**Pancreas**

The **pancreatic duct** was dilated and tortuous and measured 0.4 cm in width. Coarse pancreatic architecture was noted.

**ULTRASONOGRAPHIC FINDINGS**

Globoid spleen, possible congenital anomaly or possible neoplastic event.

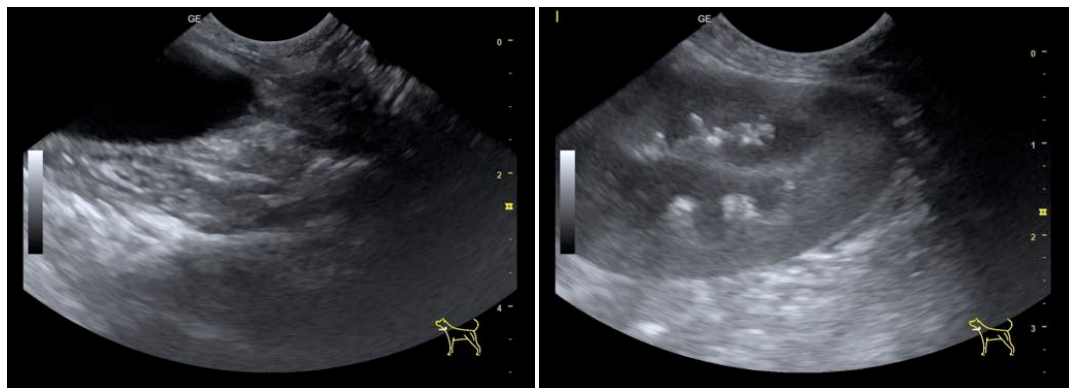
Swollen, irregular liver. Thickened common bile duct.

Dilated and tortuous pancreatic duct.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

FNA of the spleen and liver are indicated in this patient to rule out underlying round cell neoplasia as well as assess inflammatory cell type. The causes of cholangitis such as Toxoplasmosis and Bartonella should be considered.

There is no overt post hepatic obstruction as the common bile duct even though thickened it is at the upper limits of normal. Some level of pancreatitis is likely, yet the changes are chronic or remodeling owing to prior insult.





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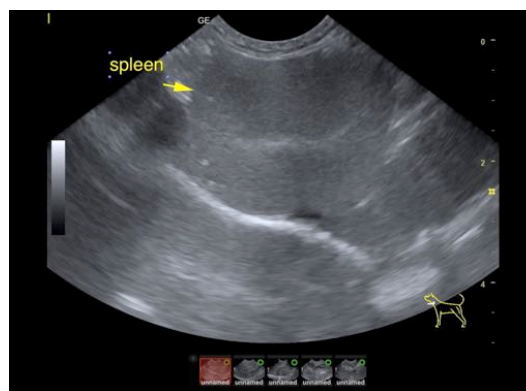
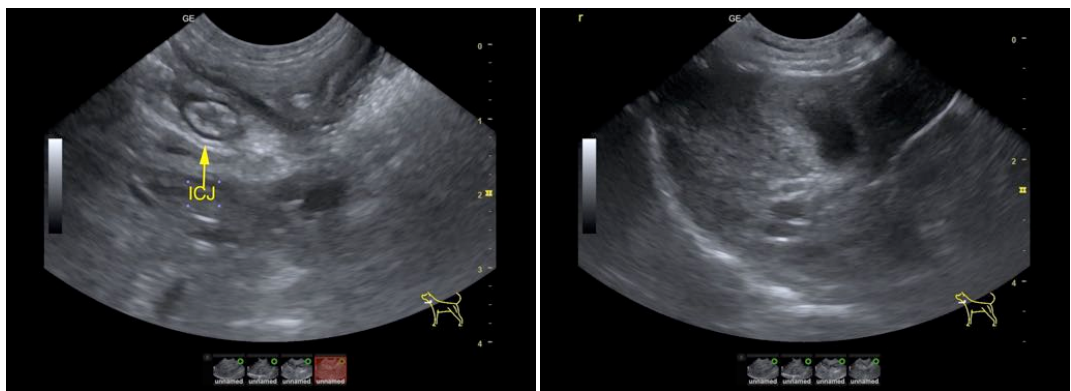
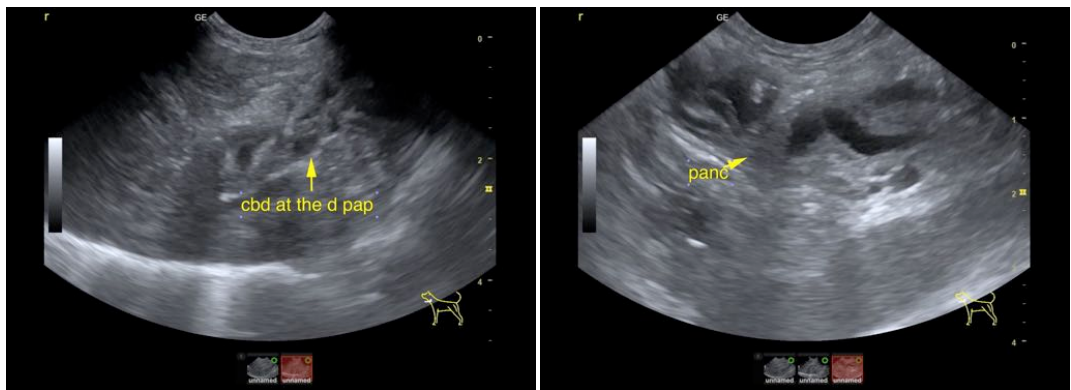
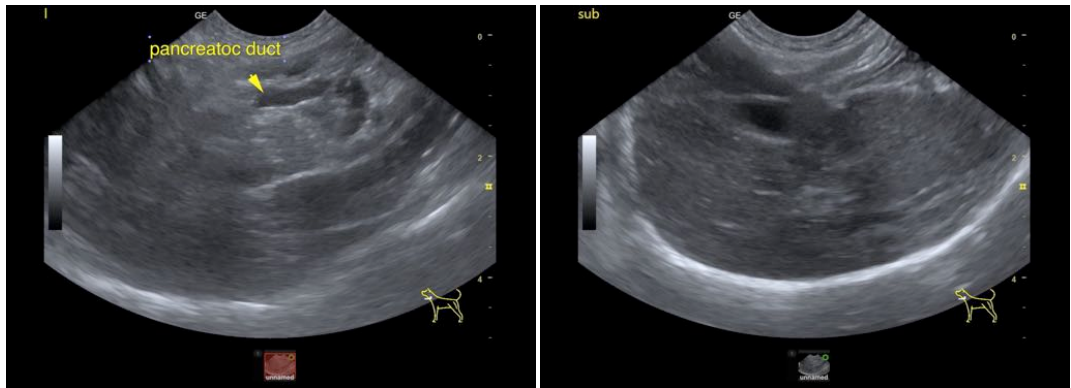
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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