



**PATIENT**

Sheba Kuhlman

**SPECIES**

Canine

**BREED**

Yorkie Mix

**SEX**

Spayed female

**AGE**

8 years

**WEIGHT**

5.81 kg

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dallas Ramberg

**HOSPITAL NAME**

Lone Mountain AH

**REFERRING VET**

Dr. Gowda

**INVOICE**

31737

**DATE**

7/15/22

**PRESENTING CLINICAL SIGNS**

History: P presented on 7/14 for 4 day history of vomiting and diarrhea. No blood noted. Unsure of any dietary indiscretion as primary owners have dementia.  
Abnormal PE/Chem/CBC/UA Results: cPLI positive, significantly elevated liver enzymes on bw (ALT 1034, ALP >2400). P currently hospitalized on IV fluids, buprenorphine, cerenia, and pantoprazole.

**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 normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The right kidney measured 4.0 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 right adrenal gland measured 0.6 cm. The left adrenal gland measured 0.3 cm.

**Spleen**

The **spleen** revealed subtle, micronodular, hypoechoic changes measuring up to 0.3 cm.

**Liver**

The **liver** revealed coarse architecture with increased portal markings. The gallbladder was over distended with lobar biliary duct dilation. The common bile duct was thickened with echogenic debris. The common bile duct was excessively dilated at 0.64 cm. The hepatic lymph nodes are enlarged, hypoechoic and irregular measuring up to 2.0 cm. Regional inflammation was present.

**Gastrointestinal**

The stomach revealed a prominent and heterogenous gastric mucosa with hypoechoic hypertrophied muscularis and increased submucosal echogenicity. The small intestine and colon were unremarkable.



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**Pancreas**

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Heterogenous, ill-defined pancreatic changes were noted. .

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**ULTRASONOGRAPHIC FINDINGS**

Post hepatic obstruction with lobar biliary duct dilation.

**BREED**

Yorkie Mix

Common bile duct thickening and debris.

Excessive gallbladder debris.

Heterogenous pancreatic changes and regional lymphadenopathy.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

I am concerned for bile duct neoplasia or possible lymph node based neoplasia. Exploratory surgery with the objective of biopsies and common bile duct lavage is indicated. If accessible ultrasound-guided FNA of the hepatic lymph nodes, spleen and liver would be warranted. It is difficult to ascertain how much of the debris within the biliary tree is coalesced bile and what is possible tissue. Inflammatory hepatopathy with mucoduct and emerging mucocoele with concurrent pancreatitis is entirely possible. However, underlying neoplasia is a concern. Prognosis is guarded. Recheck sonogram is recommended in 72-hours. However, exploratory surgery with expectation of bile duct lavage, cholecystectomy and liver biopsy as well as lymph node biopsy with inspection of the pancreatic region would all be warranted.

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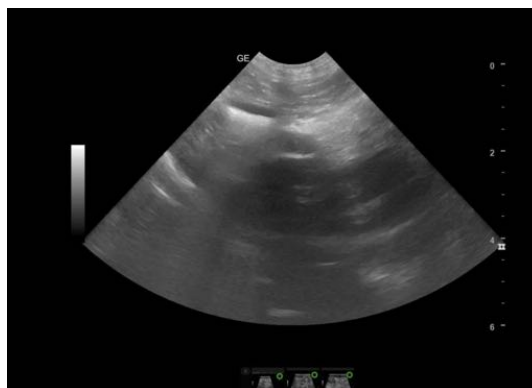
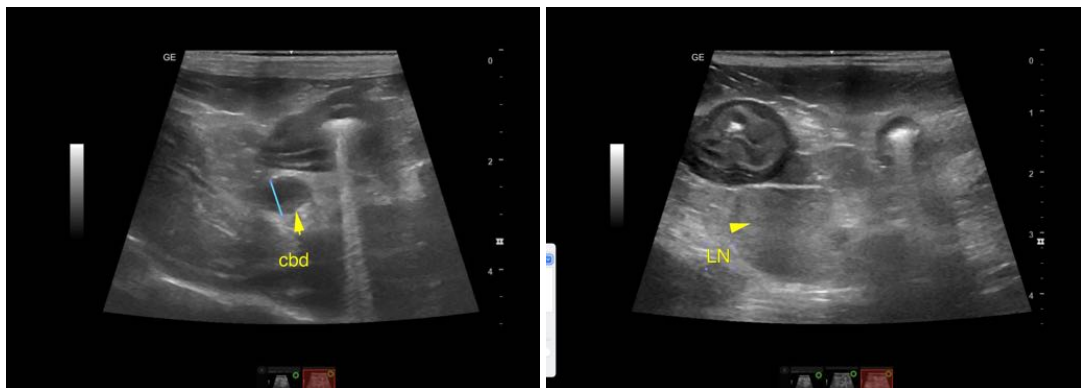
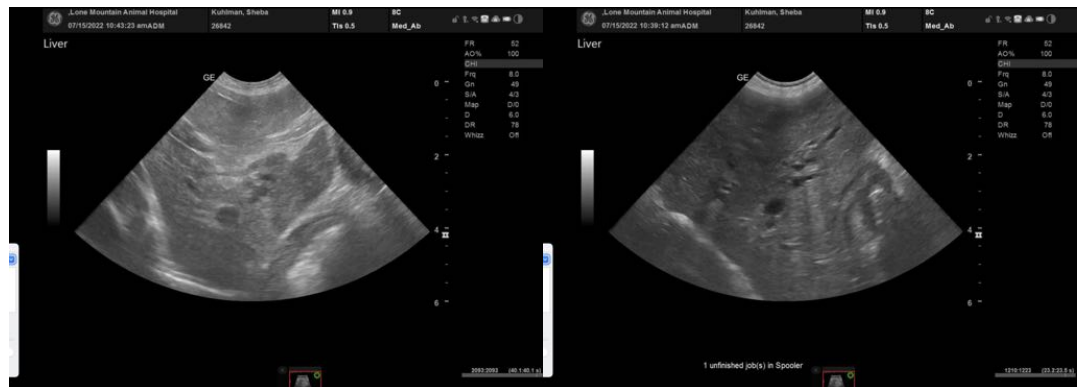
Dr. Gowda

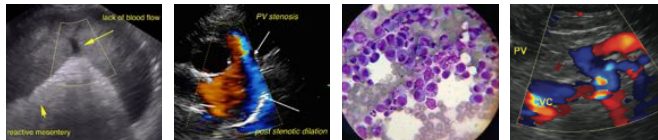
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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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Yorkie Mix

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

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