



**PATIENT**

Jayda Knox

**SPECIES**

Canine

**BREED**

Pug

**SEX**

Spayed Female

**AGE**

12 Years

**WEIGHT**

10.8 kg

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Focused Ultrasound  
Resources

**HOSPITAL NAME**

Veterinary Emergency  
Group

**REFERRING VET**

Focused Ultrasound  
Resources

**INVOICE**

13845

**DATE**

10/18/21

**PRESENTING CLINICAL SIGNS**

History: Vomiting, diarrhea, anorexia

Abnormal PE/Chem/CBC/UA Results: ALP 1096 Globulin 4.8 CL 107

**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 were noted. Ureteral papillae were normal.

The **kidneys** revealed largely normal size, structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some mild 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 5.28 cm. The left kidney measured 5.05 cm.

**Adrenal Glands**

The **left adrenal gland** was 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 0.44 cm.

The region of the **right adrenal gland** revealed no evident 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 were noted.

**Liver**

The **liver** was largely unremarkable. Mild increased portal markings were noted. The gallbladder revealed excessive debris and minor over distention. A gallbladder calculus was noted, measuring 6.0 mm. Smaller calculi also noted.

**Gastrointestinal**

**Gastric** stasis was noted with largely anechoic fluid. The jejunum in this patient revealed an infiltrative pattern with loss of structural detail and excessive wall thickness (0.57 cm) with enhanced surrounding mesentery, suggestive for regional inflammation. The upper duodenum was also thickened. The colonic wall was also thickened up to 0.31 cm. Hard stool was noted in the colon.

**Pancreas**



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The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Undulating contour was noted. The pancreatic duct was dilated. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxyphoid palpation then low-grade smoldering chronic pancreatitis should be suspected. Enhanced surrounding mesentery was noted. This is a moderate change.

**ULTRASONOGRAPHIC FINDINGS**

- Variable intestinal thickening with early loss of mural detail meeting neoplastic criteria in portions of the jejunum. Minor thickening without loss of detail noted elsewhere.
- Colonic thickening
- Age-related renal changes
- Age-related pancreatic changes, concurrent pancreatitis likely yet chronic active form
- Gallbladder calculus

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

I'm concerned for gastroenteritis with areas of early complicated intestinal pathology with a possibility of conversion to underlying lymphoma primarily in the jejunum. Medical therapy for gastroenteritis/pancreatitis could be considered and ursodiol to attempt to dissolve the gallbladder debris, however, the portion of jejunum in question should be monitored carefully. Full thickness GI biopsies would be ideal, however, may not be a practical option. Recheck sonogram in 5-7 days depending upon clinical progression. Guarded prognosis. GI protectants, 24-hour NPO, pain management, broad spectrum antibiotics and aggressive fluid therapy/hetastarch or similar should be considered. Trickle feeding warranted after 24-hour NPO.

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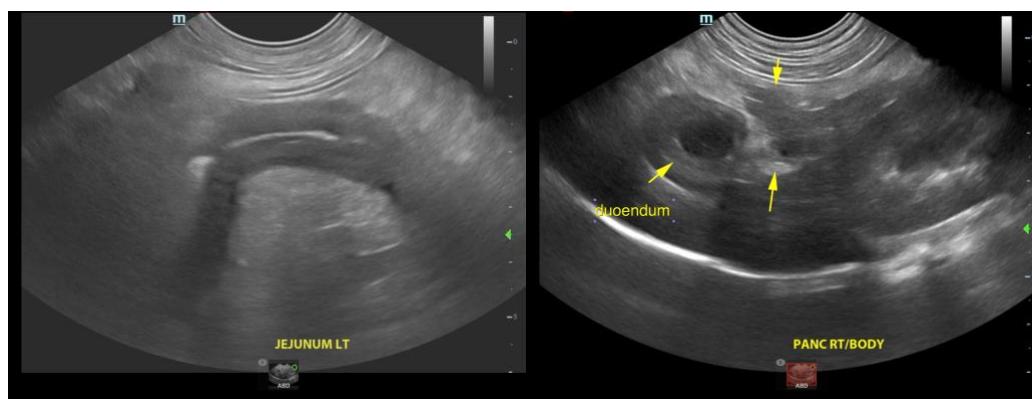
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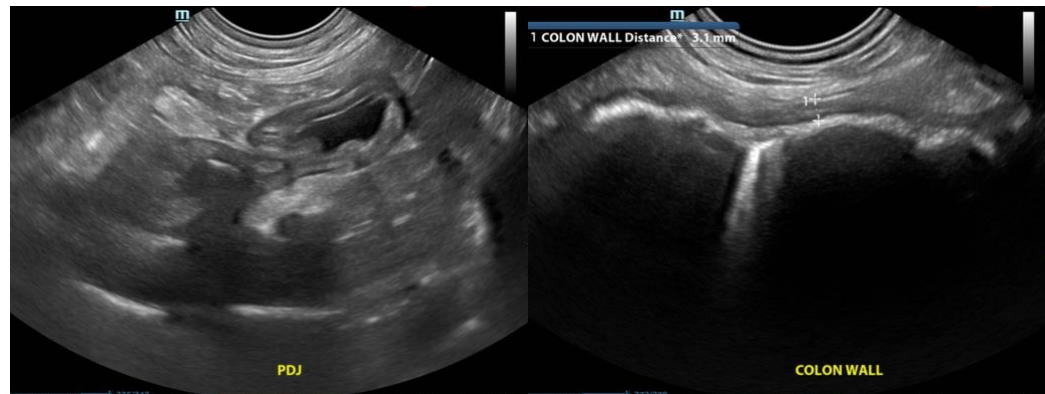
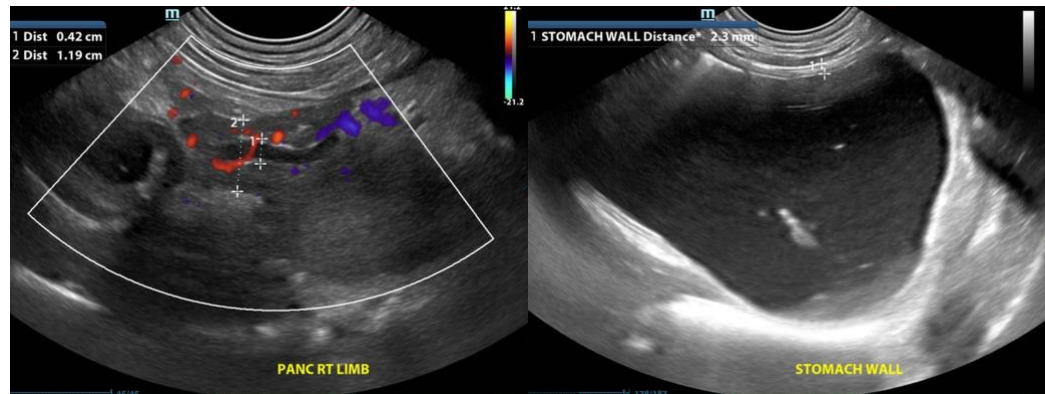
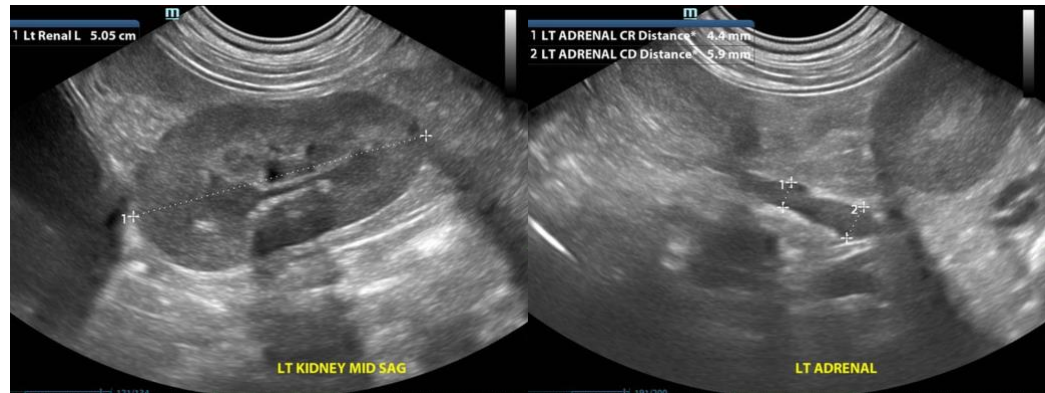
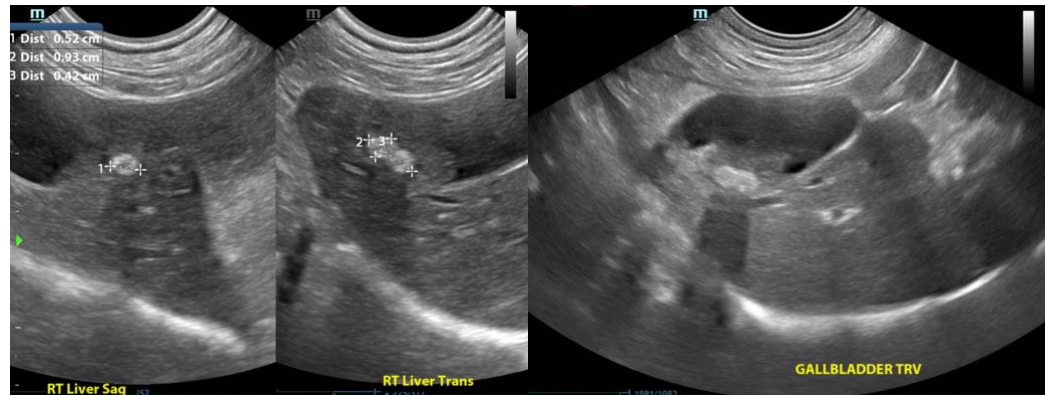
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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