



**PATIENT PRESENTING CLINICAL SIGNS**

Griffin Holman

**SPECIES**

Canine

**BREED**

Corgi

**SEX**

Neutered male

**AGE**

11 years

**WEIGHT**

32.7 lbs

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUS

**IMAGING PERFORMED BY**

Dr. Wepprich

**HOSPITAL NAME**

Willamette VH

**REFERRING VET**

Dr. Wepprich

**INVOICE**

91276

**DATE**

8/17/21

History: Pt presented last night for difficulty standing, bloated abdomen, and recent seizure activity starting in January. Pt started on Keppra at that time. Second seizure occurred on March, and then two seizures in a 24 hour period last week. Around the time seizures occurred last week O reports that abd started to appear swollen and uncomfortable. RDVM recommended GI diet and probiotics at this time. Pt continued to become more lethargic since then. O reports pt has been panting more for the past 2 wks and hypersalivating. Soft stools after switching to wet food diet. Receives 25mg carprofen BID for arthritis.

Abnormal PE/Chem/CBC/UA Results: QAR on exam, abd. distension. Free abdominal fluid on FAST scan, FNA performed, clear fluid. Submitted to antech for analysis, pending results. Thoracic and abd. radiographs submitted for review. FINDINGS: Thorax: The trachea is well aerated and uniform in diameter. The cardiac silhouette is mildly enlarged. There is straightening of the caudal cardiac outline indicating mild left atrial enlargement. There is suggestion for inverted D sign indicating mild right sided cardiomegaly in the VD projection. The lobar vessels and caudal vena cava appear normal. Diffusely throughout the lungs, a mild bronchial and interstitial pattern is identified. Considering the absence of a reported cough this likely reflects an age related finding. There is no evidence for pulmonary nodules, pleural effusion or lymphadenopathy. A small lobulated increase in soft tissue opacity is noted in the cranio-dorsal aspect of the thorax level with the second intercostal space. This most likely reflects an incidental focus of plaque-like atelectasis. The diaphragm is intact. Abdomen: Loss of serosal detail is noted throughout the abdominal cavity. The liver is markedly enlarged causing caudal deviation of the gastric axis. Marked enlargement and rounding of its margins is also noted of the spleen. The left kidney, retroperitoneal space and visualized part of the urinary bladder appear normal. Assessment of the right kidney is limited on this study however no evident abnormalities are noted. The stomach is mildly distended with gas and amorphous material of soft tissue opacity. Moderate widening of the pyloroduodenal angle is noted. The small intestines are mostly empty and collapsed. The colon which is caudally displaced is moderately distended with semi-formed fecal material. Bridging ventral spondylosis is noted at L2-3. CONCLUSIONS: 1. There is evidence for mild enlargement of the right and left side of the heart. This may suggest combined tricuspid and mitral valve regurgitation. Possible differential diagnosis for mild right sided cardiomegaly include pulmonary hypertension or less likely heartworm infection. There is no evident indication for congestive left or right-sided heart failure in the thorax. 2. Moderate loss of serosal detail is combined with marked enlargement of both the liver and spleen. These changes combined may suggest neoplastic infiltration of the liver and spleen such as caused by lymphoma without excluding other types of neoplasm. Extramedullary hematopoiesis or inflammatory infiltration of the spleen or liver are not entirely excluded. Abdominal effusion could reflect hemo-abdomen, without excluding peritonitis or mesenteric seeding of neoplasia. 3. Widening of the pyloroduodenal angle may suggest pancreatitis or reflect the result of caudal displacement of the stomach secondary to hepatomegaly. CBC - HCT 31.1%, WBC 13.87k, leukogram wnl Chem17 - TP 3.4, Alb 1.6, Glob 1.8, Chol 72, Amyl 1717, rest wnl Lytes - all wnl LAC = 1.7 (wnl) Ammonia = 42 (normal) UA (free catch, P urinated on table during urine collection) - USG 1.032, pH 6.0, PRO 1+, KET 1+, BIL 1+, BLD 3+. Sedivue WBC <1/hpf, RBC 2/hpf, suspect rods/cocci (suspect false pos due to contamination), struvite crystals 6-10/hpf UPC <0.2

**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.



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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 left kidney measured 5.0 cm. The right kidney measured 5.0 cm.

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**Adrenal Glands**

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The **adrenal glands** were not visualized.

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**Spleen**

The **spleen** was enlarged with multi-focal, hypoechoic nodular changes with capsular expansion and enhanced surrounding mesentery. This is consistent with infiltrative disease.

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**Liver**

The **liver** was swollen with irregular contour. Multi-focal, hypoechoic nodules were noted with loss of structural detail. Swollen, irregular, hepatic contour is present with enhanced surrounding mesentery and intralobar free fluid. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. The hepatic lymph nodes were enlarged and the largest of which measured 2.0 x 1.0 cm.

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**Gastrointestinal**

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Variable intestinal thickening was noted with an area of undifferentiated jejunum. This is suggestive for an infiltrative process.

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**Pancreas**

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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.

**REFERRING VET**

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**ULTRASONOGRAPHIC FINDINGS**

Splenohepatic infiltrative pattern with hepatic lymphadenopathy.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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FNA of the spleen and liver is recommended for further definition. The free fluid is likely owing to lymphatic obstruction/congestion.



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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.

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

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