



## PATIENT

Junior Cox

## SPECIES

Canine

## BREED

Chihuahua X

## SEX

Neutered Male

## AGE

6 Years 7 Months

## WEIGHT

21

## INTERPRETED BY

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

## IMAGING PERFORMED BY

Dr. Preston

## HOSPITAL NAME

All Creatures AH

## REFERRING VET

Dr. Preston

## INVOICE

26105

## DATE

10/6/21

## PRESENTING CLINICAL SIGNS

me: \_P came in on 9/25/21 for diarrhea and losing weight. For 24 hours P was lethargic. P is eating Z/D diet and eating well. IH partial panel revealed slightly increased ALT at 167 and mild hypokalemia. P was sent home with Cerenia 24mg SIG : Give 1 Tab PO SId PRn x Nausea or Gas Pain Metronidazole 250mg SIG #10 : Give 1/2 tab PO BID until gone Provable 1 Sleeve : Give 1 Cap PO SID x 10 days. \_ALT was rechecked on 10/4 and is higher at 436. P presented today for abdominal ultrasound.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The prostate is normal in size (0.63 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (4.8 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.88 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

### Adrenal Glands

The left adrenal gland is normal in size measuring 0.42 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.52 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

### Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

### Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.



**PATIENT**

***Gastrointestinal***

Junior Cox

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

**SPECIES**

Canine

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Duodenum wall measured 0.49 cm. Jejunum wall measured 0.30 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

**BREED**

Chihuahua X

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

**SEX**

Neutered Male

***Pancreas***

The pancreas is prominent and hypoechoic as compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

**AGE**

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***Free Abdomen***

**WEIGHT**

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Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

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- Hypoechoic and prominent pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The ultrasound findings visualized were relatively mild. The pancreas appears prominent in a few select images. Recommend GI panel with quantitative fPLI, TLI, B12 and folate to further evaluate for pancreatitis and small intestinal disease. Unfortunately, it is not uncommon to have relatively normal ultrasound despite significant GI signs. Many causes for diarrhea are not possible to diagnose by ultrasound alone. No focal lesions were observed in either the liver or GI tract.

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As far as the liver enzyme elevation goes, consider:

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- Consider close evaluation of history for possible toxic changes examine medications, diet, dietary indiscretion etc. Rarely Clavamox can cause an ALT elevation.
- Consider PCR on urine/serum for leptospirosis (if not on antibiotics)/serology if recent antibiotic history
- If not already done, consider pre and post prandial bile acids to evaluate liver function
- Consider Fine needle aspirate if round cell neoplasia is on your differential list (25 g needle, normal coags)

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If systemic causes for diarrhea are thought unlikely (liver function is normal, ALT is improving, etc.), consider primary GI Causes such as GI parasitism, dietary indiscretion, mild pancreatitis, bacterial dysbiosis, food allergy, IBD, and less likely intestinal neoplasia.

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- Recommend diet trial with a novel protein hydrolyzed prescription diet (already started).



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- Consider starting a probiotic (already started).
- If symptoms continue or progress, consider obtaining GI biopsies.

It is possible that the antibiotics are contributing to the diarrhea as well.

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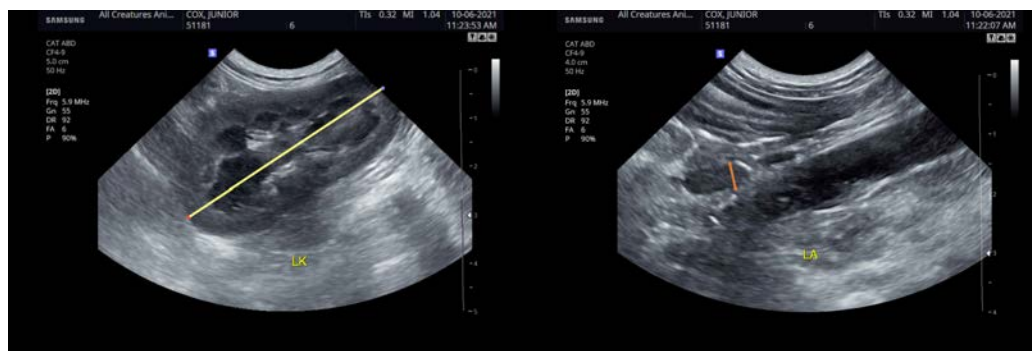
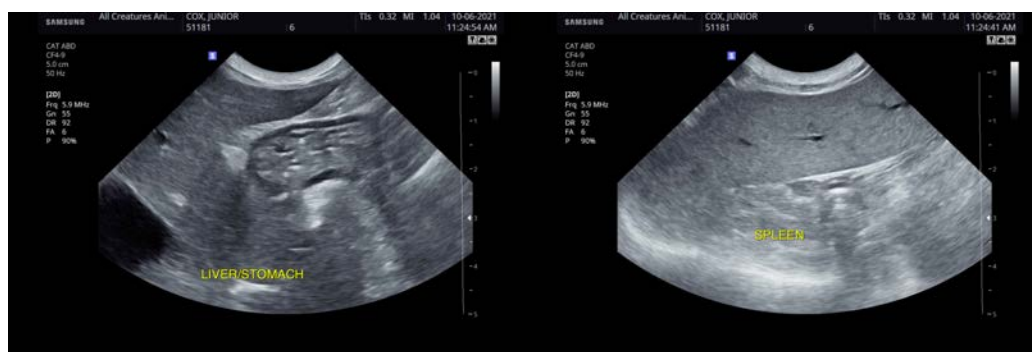
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**SPECIES**

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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.

**BREED**

Chihuahua X

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)  
kathleen.sennello@sonopath.com

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