

PATIENT

Penny Jackson

SPECIES

Canine

BREED

Chihuahua Mix

SEX

Spayed Female

AGE

5 years

WEIGHT

7 lbs

PRESENTING CLINICAL SIGNS

Dog presented acting slightly off? Has been going on for awhile according to owner. Still eating and acting ok. NSF on physical exam
Abnormal PE/Chem/CBC/UA Results: Bloodwork shows ALT - 523 (18-121), AST - 128 (16-55).
Thyroid levels WNL. Ultrasound done for further diagnostics

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 left kidney has a normal shape and size (3.2 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 (3.7 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.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Leal

HOSPITAL NAME

Blairstown AH

REFERRING VET

Dr. Zeliff

INVOICE

95952

DATE

2/9/22

Adrenal Glands

The left adrenal gland is normal in size measuring 0.38 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.

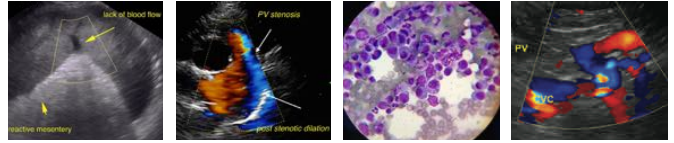
The right adrenal gland is normal in size measuring 0.45 cm at the caudal pole It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

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 mildly hypoechoic. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. 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 gallbladder is not thickened and has a smooth mucosal surface.



PATIENT

There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Penny Jackson

SPECIES

Gastrointestinal

Canine

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.

BREED

Chihuahua Mix

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. The duodenum measured 0.4 cm and the jejunum measured 0.25 cm. Bowel loops follow a typical curvilinear path with distinct wall layering. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed

SEX

Spayed Female

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.

AGE

5 years

Pancreas

WEIGHT

7 lbs

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

INTERPRETED BY

Free Abdomen

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

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.

IMAGING PERFORMED BY

Dr. Leal

ULTRASONOGRAPHIC FINDINGS

HOSPITAL NAME

Blairstown AH

PRIMARY FINDINGS:

- Subjectively heterogenous and hypoechoic liver. The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. An inflammatory or infiltrative disease process would seem most likely.
- Large, distended gallbladder with a moderate amount of intraluminal debris. The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.
- Mild, subjective intestinal wall thickening with mild mucosal fogging. The mild small intestinal wall changes may be a normal variant in this patient or could be consistent with an inflammatory process (e.g., inflammatory bowel disease).

REFERRING VET

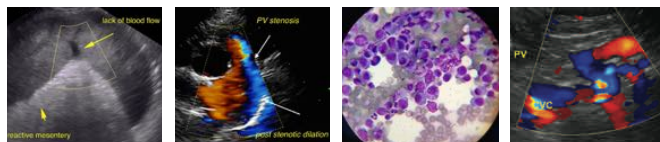
Dr. Zeliff

INVOICE

95952

DATE

2/9/22



PATIENT

Penny Jackson

SPECIES

Canine

BREED

Chihuahua Mix

SEX

Spayed Female

AGE

5 years

WEIGHT

7 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Leal

HOSPITAL NAME

Blairstown AH

REFERRING VET

Dr. Zeliff

INVOICE

95952

DATE

2/9/22

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

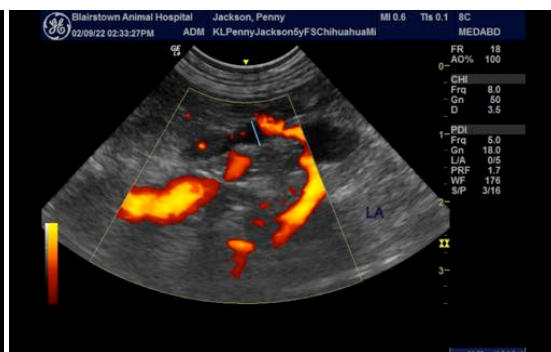
No prominent, focal lesions are observed associated with the liver to explain the ALT elevation reported.

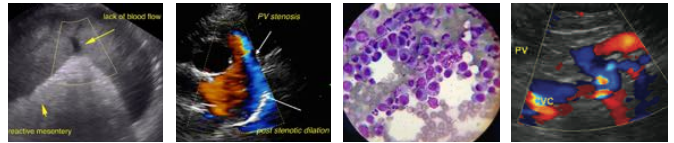
- Consider close evaluation of history for possible toxic changes examine medications, diet, dietary indiscretion etc.
- Consider PCR on urine/serum for leptospirosis (if not on antibiotics)/serology if recent antibiotic history
- If not already done, consider pre and post prandial bile acids to evaluate liver function
- If the ALP is significantly elevated relative to the ALT and symptoms consistent with Cushing's are present, consider adrenal function testing (ACTH stim)
- Consider Fine needle aspirate if round cell neoplasia is on your differential list (25 g needle, normal coags)
- If no response to medical care (Denamarin, antibiotics,+/- Ursodiol etc...) Consider liver biopsy with samples obtained for histopathology, culture, and copper levels.

Based on the images provided a portosystemic shunt seems unlikely. However, A CT scan would likely be necessary to completely rule this out.

The small intestine, particularly the duodenum, appears somewhat prominent and thickened with mild mucosal fogging. Correlate this with symptoms and if GI signs are present you can consider changing to a novel protein/hydrolyzed protein diet, running a GI panel to further evaluate for small intestinal disease (Texas A&M for a qualitative PLI, TLI, cobalamin and folate).

Additionally the gallbladder is prominent and somewhat distended. This can be secondary to fasting and insignificant, but if liver enzyme elevations continue consider monitoring of the gallbladder and starting Ursodiol.





PATIENT

Penny Jackson

SPECIES

Canine

BREED

Chihuahua Mix

SEX

Spayed Female

AGE

5 years

WEIGHT

7 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Leal

HOSPITAL NAME

Blairstown AH

REFERRING VET

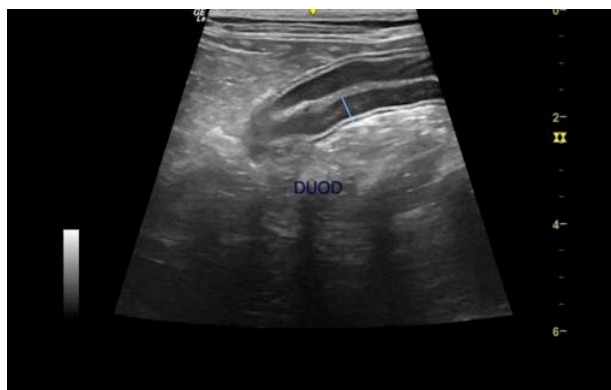
Dr. Zeliff

INVOICE

95952

DATE

2/9/22



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.

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