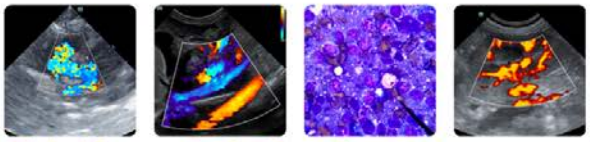


PATIENT

Lexie Alvarado

SPECIES

Canine

BREED

Mixed

SEX

Spayed Female

AGE

11 Years

WEIGHT

27.4 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Gabriel Ferrer, DVM

HOSPITAL NAME

Pulse: Pet Ultrasound

REFERRING VET

Dr. Elimar Ruiz

INVOICE

74286

DATE

4/8/26

PRESENTING CLINICAL SIGNS

Px presented as a referral due to persistent elevated hepatic enzyme values. Px originally visited rDVM around a month ago due to a UTI and an ear check, bloodwork was conducted and an elevation of ALT was noted. Px was sent home with Denamarin and Crananidin. On follow up the ALT values had increased. Owner reports normal food and water intake, no significant vomiting/diarrhea, and some slight lethargy.

Abnormal PE/Chem/CBC/UA Results: Bloodwork attached below for your reference

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 (5.13 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal 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 (5.07 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal 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 0.49 cm at the cranial pole and 0.45 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.

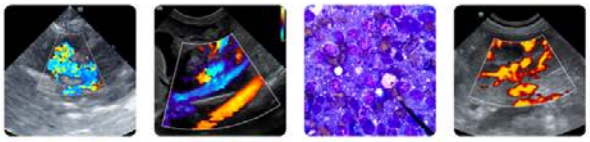
The right adrenal gland is large and abnormal in appearance, measuring 0.92 cm at the cranial pole and 0.41 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is abnormal in appearance in that there is a hyperechoic nodule in the cranial pole measuring 0.82 cm x 1.23 cm. No evidence of vascular invasion visualized.

Spleen

The spleen is subjectively normal in size (1.54 cm), 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 mildly 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.



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The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of 0.30 cm 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.

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Duodenum wall measures 0.53 cm. Jejunum wall measures 0.47 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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. The descending colon wall is slightly prominent, measuring 0.21 cm, with intact wall layering.

Pancreas

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.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There is no evidence of a diffuse lymphadenopathy. The right iliac lymph node is slightly prominent measuring 0.61 cm. A gastric lymph node is prominent measuring 0.61 cm. The omentum is of normal echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Mildly heterogeneous – 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.

- Moderate gallbladder debris – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

- Hyperechoic nodule in the cranial pole of the right adrenal gland – This currently has an appearance most consistent with a benign lesion (adenoma, hyperplasia, etc.). An early neoplastic lesion cannot be ruled out.

- Prominent/mildly thickened small intestine – 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).

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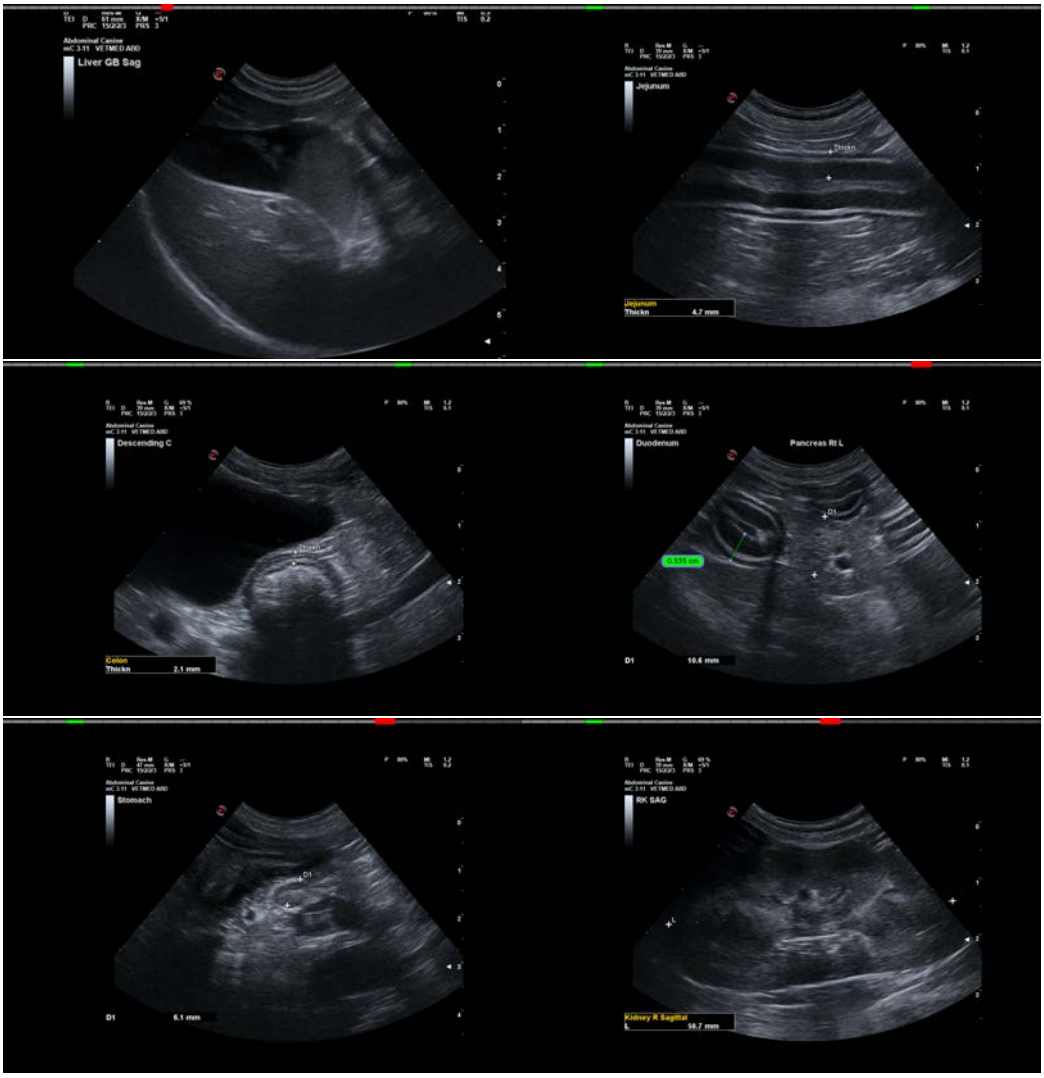
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No focal lesions are visualized associated with the liver to explain the elevation in ALP reported. Generally, the parenchyma appears mildly heterogeneous. This is a non-specific finding. This could be consistent with a vacuolar hepatopathy or other hepatopathy. Additionally, there is some debris visualized within the gallbladder with no surrounding inflammation noted. Consider starting Ursodiol therapy and continued monitoring. Additionally, a fine needle aspirate of the liver could be considered (provided coagulation parameters are normal).

There is a hyperechoic nodule in the cranial pole of the right adrenal gland. This could represent a benign or early neoplastic lesion and could be actively secreting hormone or be non-active. Consider adrenal function testing, looking for cortisol excess. Additionally recommend a blood pressure evaluation. If hypertension is present, recommend measuring catecholamine levels, looking for a possible pheochromocytoma. Options from here would include a contrast CT scan, particularly if surgical removal would be considered, or close continued monitoring for progressive growth (recheck in 2-3 months).



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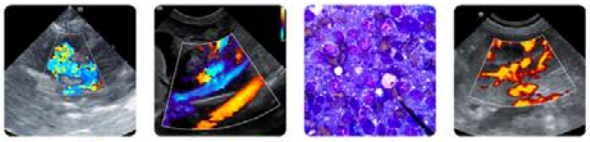

Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath.com info@sonopath.com 1.800.838.4268

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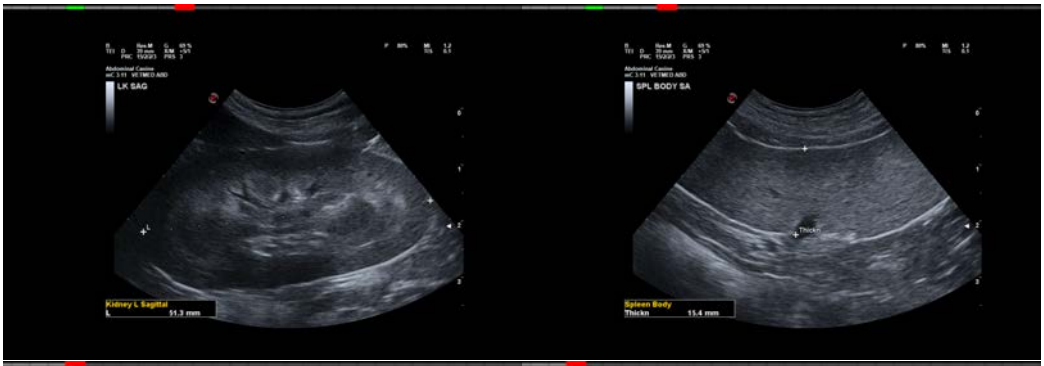

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

info@sonopath.com