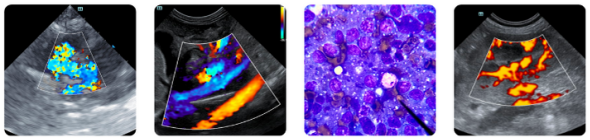


PATIENT

Lilo Rivera

SPECIES

Canine

BREED

Cardigan Welsh Corgi

SEX

Intact Female

AGE

11 years

WEIGHT

28 lbs

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Dr. Gabriel Ferrer

HOSPITAL NAME

Pulse Pet Ultrasound Services

REFERRING VET

Dr. Denisse De Moya

INVOICE

10945

DATE

12/17/2025

PRESENTING CLINICAL SIGNS

Presented as a referral for an abdominal ultrasound to evaluate anorexia, mild abdominal distention and mild hyperglycemia. Pt developed anorexia on Nov 24th and polydipsia. Pt was hospitalized and treated with Clavamox which just finished 2 days ago. Pt's polydipsia improved, but pt still have anorexia. Pt was started on Glycobalance diet. No vomiting or diarrhea. Last heat cycle was 3 months ago. Pt was diagnosed with bladder stones and cystotomy was performed in 2023 and was treated for HW disease in 2021.

Abnormal PE/Chem/CBC/UA Results: Bloodwork and U/A attached as supporting documents.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is only mildly distended (empty). Visible contents are anechoic. Urinary bladder wall is unable to be fully assessed for pathology without further distension. No visible masses or definitive cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface. In the face of urinary signs and/or suspected urinary bladder pathology, reassessment after complete filling is recommended.

The right kidney is normal is size (6.6 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. A hyperechoic band parallel to the corticomedullary border is present. Trace pyelectasia is noted bilaterally. There is no evidence of mineral or infarcts observed.

The left kidney is normal is size (5.63 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. A hyperechoic band parallel to the corticomedullary border is present. Trace pyelectasia is noted bilaterally. There is no evidence of mineral or infarcts observed.

Adrenal Glands

The right adrenal gland is normal in size (0.62 cm at cranial pole and 0.58 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

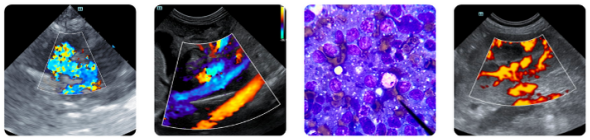
The left adrenal gland is normal in size (0.77 cm at cranial pole and 0.69 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal. A hyperechoic nodule is noted in the cranial pole. Nodule does not disrupt normal shape and/or architecture.

Spleen

The spleen is subjectively normal in size (1.4 cm thick at the hilus) with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is mildly heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.



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Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation. An approximately 1.0 cm in diameter shadowing, non-visibly obstructive, mineralized or partially mineralized density/cholecystolith is suspected.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and irregular in shape with a swollen undulating contour. Enhanced hyperechoic ill-defined surrounding fat is noted.

Free Abdomen

There is no visible free peritoneal effusion noted in these images.

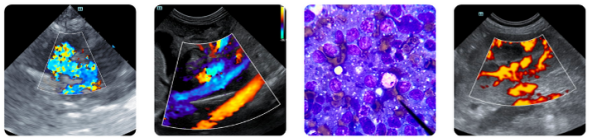
Medial iliac lymph nodes are enlarged with swollen irregular capsular contour and loss of normal length to width ratio (rounded in shape). Nodes are hypoechoic with loss of normal parenchymal detail.

Reproductive System

The uterus is diffusely, markedly distended with echogenic appearing fluid, and a thick irregular cystic appearing wall.

PRIMARY FINDINGS

- Suspect possible cystic endometrial hyperplasia with concurrent hydrometra versus pyometra versus other.
- Aggressive medial iliac lymph nodes – concerning for infiltrative round cell or metastatic neoplasia. A benign aggressive inflammatory response cannot be ruled out without tissue sampling +/- culture.
- The pancreatic changes are very mild/subtle but given the very subtly enhanced hyperechoic fat in the area, mild acute pancreatitis or potentially emerging versus resolving acute pancreatitis, as a contributing factor can't be ruled out.
- Bilateral Medullary rim sign with trace pyelectasia bilaterally - This finding is of unknown clinical significance and can be a normal variant, often idiopathic. Medullary rim sign can be



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present with renal disease including lymphoma, hypercalcemic nephropathy, Leptospirosis, tubular disease, other and should be interpreted in combination with other more specific indications of kidney disease such as isosthenuria, proteinuria, azotemia, etc. This is a common incidental finding in patients with diabetes mellitus.

SECONDARY FINDINGS

- Mildly heterogenous liver – These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.

- Moderate gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili. A non-visibly obstructive cholecystolith is suspected.

- Hyperechoic adrenal nodule in the cranial pole of the left adrenal – Differentials include primary adrenal cortical adenoma or adenocarcinoma, pheochromocytoma, myelolipoma, adrenal hyperplasia secondary to pituitary disease or metastatic disease. Ultrasound alone cannot differentiate between functional and non-functional nodules and/or between benign and malignant disease. Small nodules without other evidence of abdominal disease (to suggest metastatic disease) and/or clinical signs (to suggest adrenal disease) are most often incidental and should be monitored.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

In a patient with clinical signs consistent with a pyometra, the appearance of the uterus is concerning for a pyometra, in which case an exploratory laparotomy for ovariohysterectomy could be considered. In the meantime, or at the time of surgery, sampling of the enlarged medial iliac lymph nodes via fine needle aspirates or biopsies is also recommended if patient's coagulation status is appropriate.

In my opinion, those are the two most significant changes that warrant the most immediate intervention. Having said that, given patient's history, the appearance of the kidneys, etc., early or emerging/brewing diabetes mellitus can't be ruled out and should continue to be monitored. Similarly, very mild or low grade smoldering pancreatitis can't be ruled out and should be suspected if clinical signs persist.

Prior to surgery, if not already evaluated, three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

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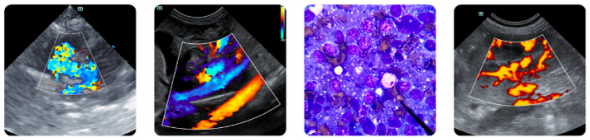

Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath.com info@sonopath.com 1.800.838.4268

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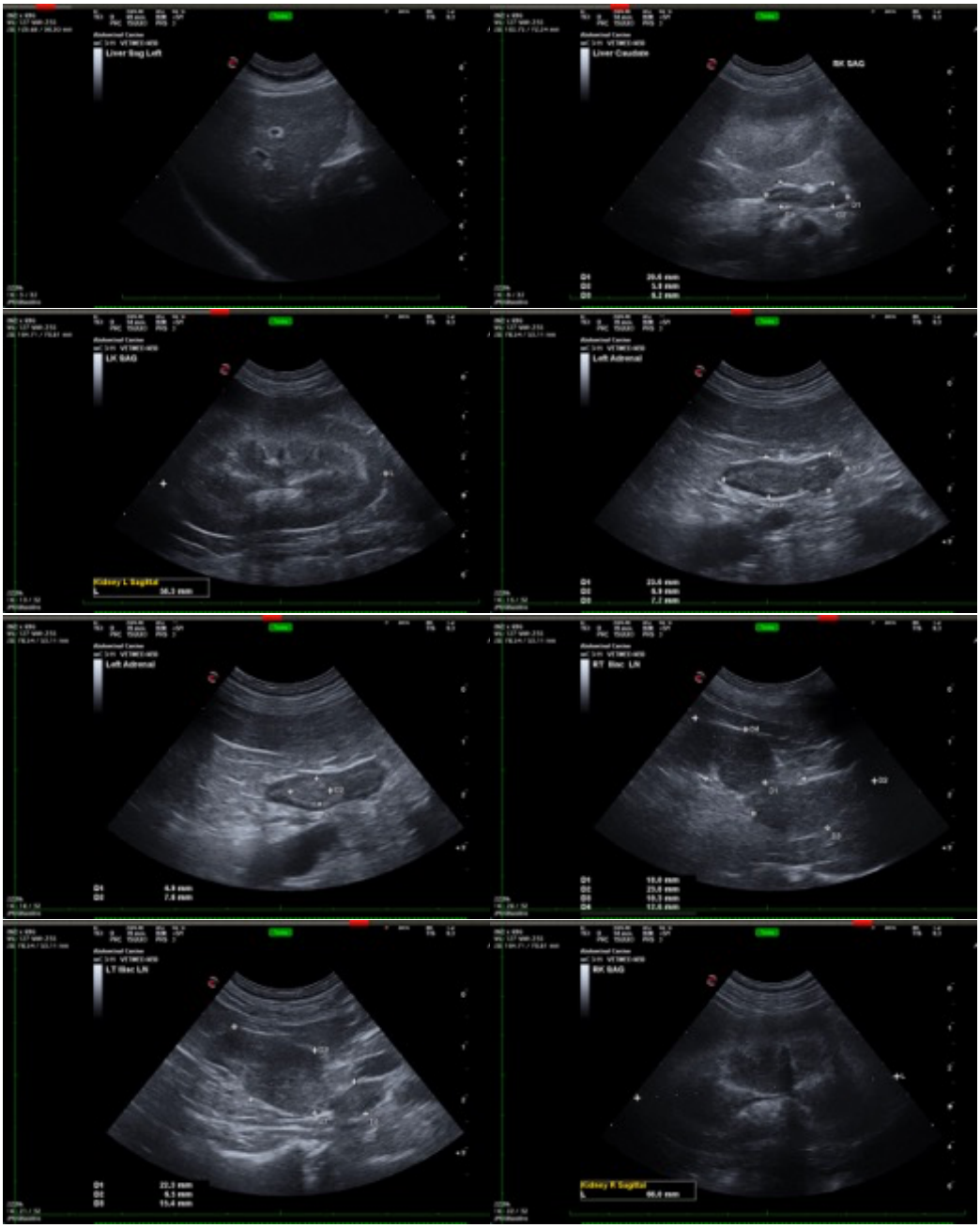

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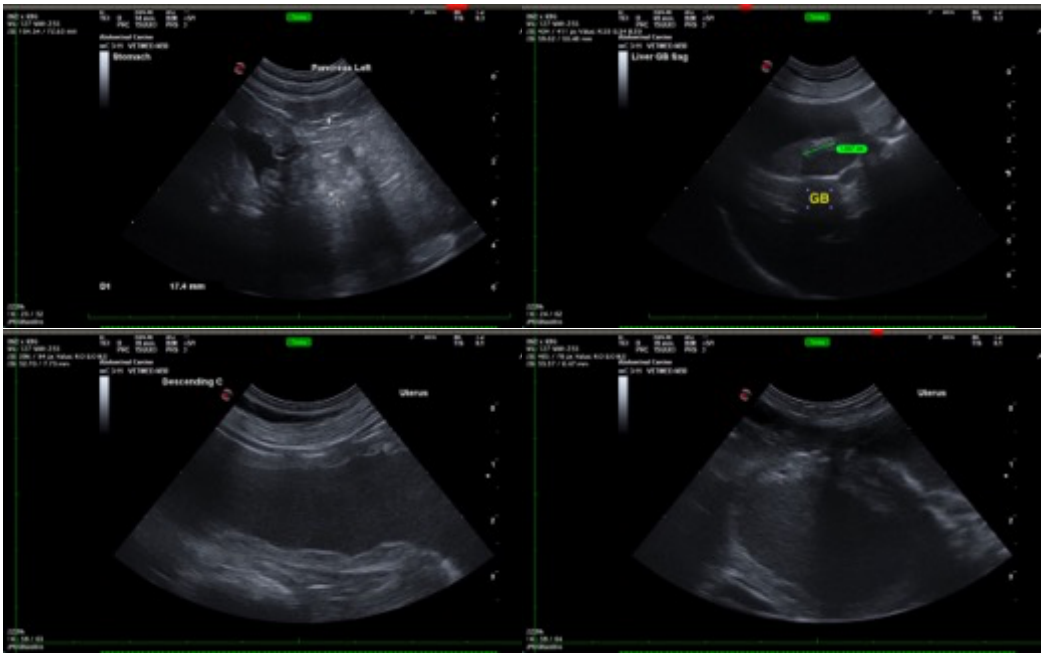

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM, DACVIM
info@sonopath.com