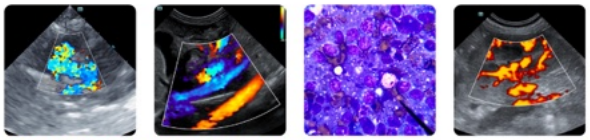


PATIENT

Storm Fries

SPECIES

Canine

BREED

Yorkie Mix

SEX

Spayed female

AGE

13 years

WEIGHT

12.7 lbs

INTERPRETED BY

Dr. Alicia Angosto Guerrero

IMAGING PERFORMED BY

Anshu Gupta

HOSPITAL NAME

Liverpool Village AH

REFERRING VET

Dr. Gupta

INVOICE

69457

DATE

12/9/25

PRESENTING CLINICAL SIGNS

History: Polyuria and polydipsia for last few months. History of chronic pancreatitis which has been well controlled with diet and gabapentin for years. Recently has been more anxious and reactive. On levothyroxine for hypothyroidism which has also been well controlled.
Abnormal PE/Chem/CBC/UA Results: Pot bellied appearance on physical exam. Suspect she has some degree of cognitive dysfunction syndrome CBC NSF Chem ALT 175 ACTH Stim normal

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The bladder lumen is poorly distended, and the urinary bladder wall measures 2.27 mm; however, due to underdistension, wall thickness may be overestimated. The urine is anechoic. The proximal urethra and vesicoureteral junction appear normal. No calculi or evidence of inflammatory or neoplastic changes are observed.

The left kidney is normal in shape and measures 4.0×1.88 cm, with a cortical thickness of 0.40 cm in the sagittal plane. The right kidney is normal in shape and size: cm, with a cortical thickness of cm in the sagittal plane. Both kidneys show a renal cortex that is slightly increased in echogenicity compared to the spleen and liver, with preserved corticomedullary definition. A mild medullary rim sign is present. There is no evidence of pyelectasia, nephroliths, or hydronephrosis. Color Doppler shows a normal pattern.

Adrenal Glands

The left adrenal gland measures 0.30 cm at the cranial pole and 0.39 cm at the caudal pole. The right adrenal gland is not completely visualized, and no true sagittal view allowing accurate dorsoventral measurement is obtained; however, the caudal pole that is partially visible appears markedly thickened, measuring up to 1.10 cm. The cranial pole could not be reliably evaluated.

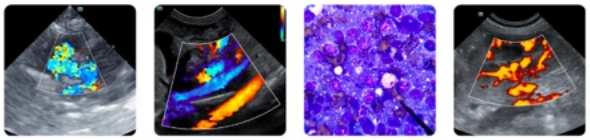
Spleen

Splenic thickness is 0.79 cm. The parenchyma shows normal echogenicity and a fine homogeneous echotexture without focal parenchymal abnormalities. The splenic capsule is smooth and regular.

Liver

The liver is subjectively normal in size, with sharp margins and a regular contour. The liver parenchyma appears uniform and isoechoic compared to the falciform fat, with a normal echotexture. A 1.63×1.20 cm hepatic cyst is observed. No hepatic lymphadenopathy is present.

The gallbladder lumen is markedly distended. The wall is thickened (2.6 mm), with mucinous gland hyperplasia and several small polypoid projections. The gallbladder contains abundant organized biliary sludge mixed with mucinous material. A developing gallbladder mucocele is suspected. No biliary obstruction or dilation of the common bile duct is identified.



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Gastrointestinal

The stomach is distended with food material, with a wall thickness of 2.01 mm and preserved layering. The pylorus measures 3.30 mm.

Duodenum: 2.79 mm. Jejunum: 3.16 mm, with normal wall layering. The ileocecal junction is not visualized. No signs of obstruction, ileus, or foreign material are identified.

Colon: transverse colon 0.60 mm with normal fecal content; descending colon 0.91 mm with small amounts of fecal material.

Pancreas

The pancreas shows normal thickness and smooth margins, although its echogenicity is markedly increased. This pattern is common in animals with fatty infiltration or chronic pancreatitis and is also frequently observed in animals with hyperadrenocorticism.

Peritoneal Cavity

No abdominal effusion or peritonitis is observed.

Cranial mesenteric lymph nodes show hyperechogenicity of the surrounding fat.

Ileocecal lymph nodes are not visualized, but surrounding regions appear unremarkable.

Aortic (aorticorenal) lymph nodes measure 5.47–6.78 mm in thickness, are rounded and markedly hypoechoic, with hyperechogenicity of the perinodal fat.

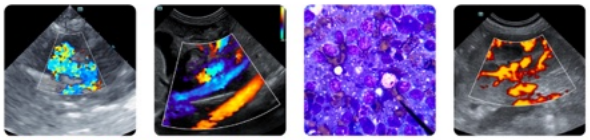
ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS

- Marked distension and wall thickening of the gallbladder with mucinous gland hyperplasia and organized biliary sludge, consistent with a developing mucocoele.
- Marked unilateral enlargement of the right adrenal caudal pole.
- Left adrenal gland slightly small, suggestive of contralateral atrophy.
- Aorticorenal lymphadenopathy (rounded, hypoechoic nodes with reactive perinodal fat).

SECONDARY FINDINGS

- Hepatic cyst (1.63×1.20 cm).
- Pancreatic hyperechogenicity, consistent with chronic pancreatitis or fatty infiltration.
- Mild renal cortical hyperechogenicity with a subtle medullary rim sign.



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The gallbladder demonstrates mucosal gland hyperplasia and organized biliary sludge consistent with a developing gallbladder mucocele. This finding, together with the patient's PU/PD and pot-bellied appearance, provides indirect support for an underlying adrenal or metabolic imbalance, as mucocoeles are disproportionately associated with hypercortisolism, including atypical forms. Given that hypothyroidism appears well controlled on levothyroxine, thyroid dysfunction is unlikely to account for the current hepatobiliary changes, placing greater emphasis on the adrenal axis.

There is marked unilateral enlargement of the caudal pole of the right adrenal gland (up to 1.10 cm), while the left adrenal gland appears slightly small, a pattern compatible with contralateral atrophy and supportive of a functional adrenal mass. Such lesions may produce excess steroid intermediates despite normal cortisol dynamics; therefore, a normal ACTH stimulation test does not exclude atypical hyperadrenocorticism or sex-hormone–mediated adrenal disease.

The pancreas is markedly hyperechoic, consistent with chronic pancreatitis or fatty infiltration, common in older small-breed dogs and often exacerbated by endocrine disorders. No ultrasonographic evidence of acute pancreatitis is present.

Mild renal cortical hyperechogenicity and a subtle medullary rim sign likely reflect nonspecific early chronic kidney or endocrine-related changes.

The aorticorenal lymph nodes are enlarged, rounded, and markedly hypoechoic with perinodal fat hyperattenuation. Although such changes are frequently reactive in the setting of hepatobiliary or pancreatic inflammation, it is noteworthy that adrenocortical tumors in dogs metastasize to regional lymph nodes in a substantial proportion of cases, with the aorticorenal nodes reported among the earliest sites of involvement. Furthermore, the marked unilateral right adrenal enlargement with a contralaterally small adrenal gland raises the possibility of a functional adrenal mass, a condition in which lymph node metastasis can occur. While the ultrasonographic appearance is not pathognomonic for metastatic disease, the current findings are compatible with this differential and cannot be excluded.

Recommendations

- A dedicated reassessment of the right adrenal gland is recommended, ideally with improved imaging technique or advanced imaging (CT), to fully evaluate the gland.
- A low-dose dexamethasone suppression test may provide further information regarding cortisol regulation, especially given the clinical signs and unilateral adrenal enlargement despite a normal ACTH stimulation test.
- Monitor mucocele progression.
- Because gallbladder mucoceles are strongly associated with underlying endocrine disease, especially hypercortisolism, addressing the primary metabolic imbalance is often essential for long-term stabilization; however, specific therapeutic decisions fall under the purview of the attending clinician.
- Monitoring of the aorticorenal lymph nodes is recommended. Cytologic sampling would be the most definitive method for characterization, but the small size of these nodes and the technical difficulty of accessing them safely mean that aspiration should only be considered if performed by an experienced operator. In this case, routine follow-up imaging is a more practical and appropriate approach.

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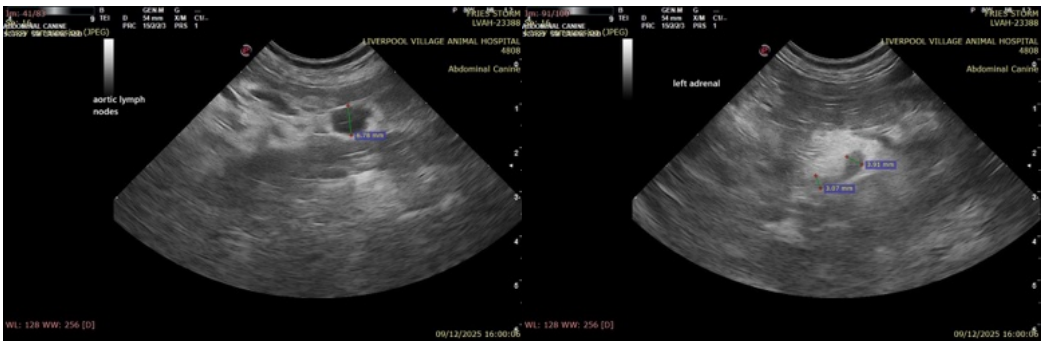

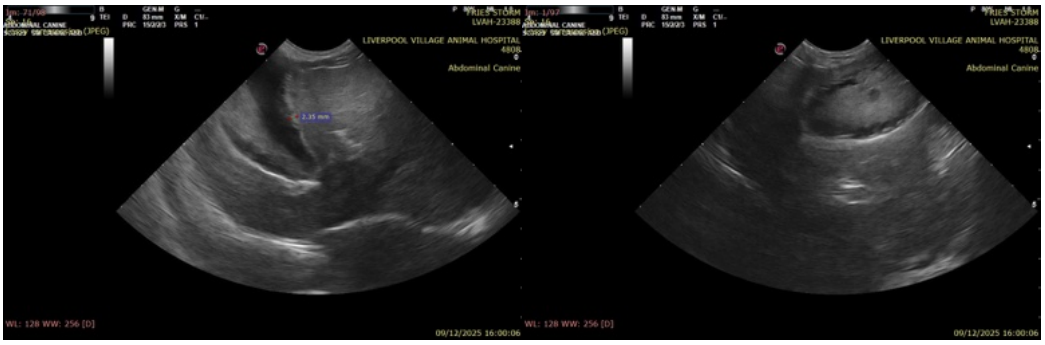

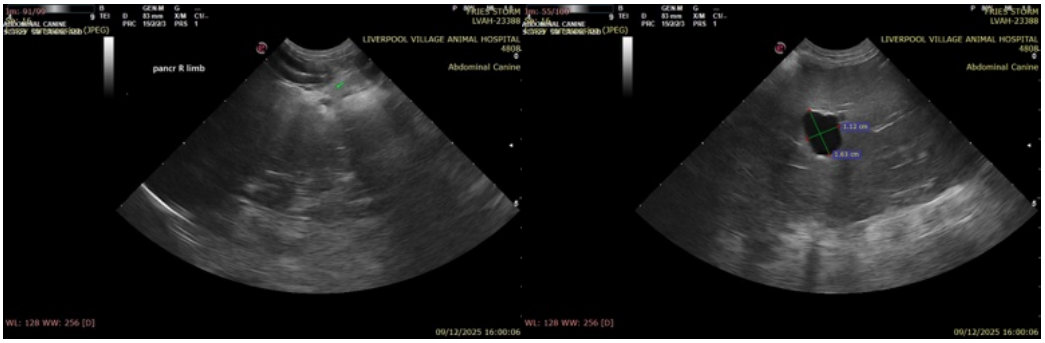

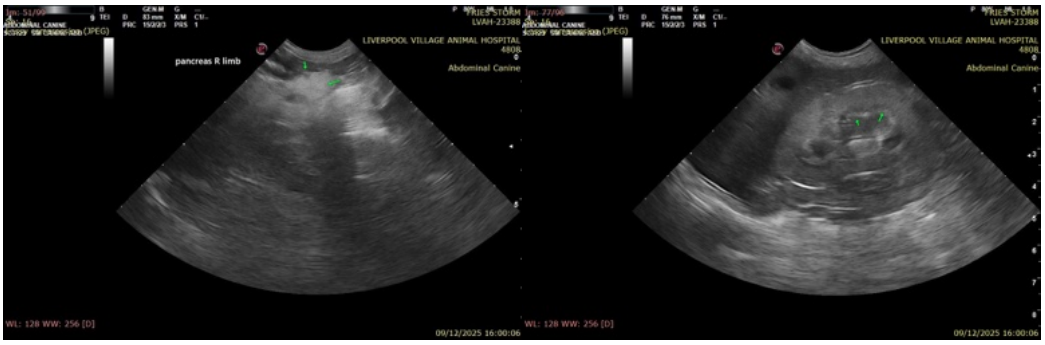

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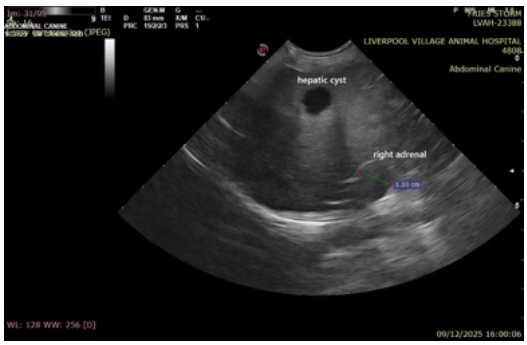

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Alicia Angosto Guerrero, DMV, PgDip, MSc.

MV Esp Ultrasound in Domestic and Wild Animals

info@SonoPath.com