

PATIENT PRESENTING CLINICAL SIGNS

Casey Hart History: No sedation- great patient-50 Gender(altered?) S Age: 12Y Weight in #: 70 Breed: Labrador Retriever History: History of Polydipsia, polyuria and urinary incontinence Physical exam findings: Only abnormality on PE is evidence of osteoarthritis and neuropathy of pelvic limbs Abnormal CBC values: mild lymphopenia Abnormal Chemistry Values: mild increase in BUN, mild increase in sodium and chloride (owner was restricting water) Lepto PCR negative Abnormal UA Values: USG 1012. Culture negative for growth Radiograph Findings(email radiographs if available): Reason for Ultrasound: Evaluate for underlying cause of PU/PD. Low dose dexamethasone test was borderline supportive of Cushing's disease. Evaluate kidneys, adrenal glands and liver

SPECIES

Canine

BREED

Labrador Retriever

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

SEX

Spayed Female

Urinary System

The urinary bladder is adequately distended with anechoic contents. The wall is smooth and regular. No abnormalities are noted with the trigone or 4-5 cm of the proximal urethra. There is no evidence of sediment, cystoliths, polyps or a mass.

AGE

12 years

Kidneys

WEIGHT

70 Pounds

The **left** kidney measures 6.74 cm. The capsule is smooth. The cortex is mildly hyperechoic and a very mild loss of the normal definition of the cortico-medullary junction is present. Mineralizations of the diverticulae and pelvis are present, without evidence of nephroliths. Significant pyelectasia (longitudinal 0.52 cm) is present. Blood flow is very good. The surrounding mesentery is not hyperechoic.

INTERPRETED BY

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The **right** kidney measures 7.06 cm. The capsule is smooth. The cortex is very mildly hyperechoic and a very mild loss of the normal definition of the cortico-medullary junction is present. Mineralizations of the diverticulae and pelvis are present, without evidence of nephroliths. Pyelectasia (longitudinal 0.53 mm) is present. A round, anechoic structure, with a smooth, thin wall, measuring 1.35 cm, is visualized within the cortex. It is most consistent with a benign cyst. Blood flow is very good. The surrounding mesentery is not hyperechoic.

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

Aortic bifurcation/trifurcation

HOSPITAL NAME

Alpine AH

No abnormalities observed.

REFERRING VET

Dr. Sjloin

Adrenal Glands

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The **left** adrenal gland measures 2.34 cm at the cranial pole, 2.36 cm at the caudal pole and 4.99 cm in length. It is severely enlarged and has lost its normal "peanut" shape. It is moderately heterogenous with hypoechoic nodules of variable size at the cranial pole and a hyperechoic region at the caudal pole. In a different angle the caudal pole appears multilobulated with disruption of the curvilinear contour. It is moderately heterogenous with hypoechoic nodules of variable size at the cranial pole and a hyperechoic region at the caudal pole. Anechoic crescent shaped areas are present at the cranial pole and mid gland. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

DATE

6/7/22



PATIENT

Casey Hart

The **right** adrenal gland is in the shape of an ellipse (1.67 cm in diameter), in addition to a nodule at the caudal pole (0.80 cm in diameter). The cranial pole has a hypoechoic intraparenchymal nodule, which measures 0.93 cm in diameter x 0.85 cm in length. The phrenico-abdominal vein and surrounding vasculature unremarkable. The mesentery at the caudal pole is mildly to moderately hyperechoic.

SPECIES

Canine

Spleen

Subjectively, mild splenomegaly is present. The architecture, echotexture, and echogenicity are within normal limits. The capsule is smooth. No abnormalities are observed with its vasculature, i.e. congestion and thrombi are not identified.

BREED

Labrador Retriever

SEX

Spayed Female

Liver

There are no obvious signs of hepatomegaly and its borders are smooth and sharp. It is mildly, but diffusely hyperechoic, and a diffuse, mildly coarse/granular echotexture is observed. A hypoechoic nodule measuring 0.57 cm in diameter is noted. Focal lesions are not observed and no abnormalities are observed with the hepatic vessels.

AGE

12 years

The gallbladder (GB) is mildly distended with a moderate amount of echogenic material. The GB wall is within normal limits in thickness and echogenicity. The portions of the cystic and/or common bile ducts observed are not dilated or tortuous, i.e. there are no signs of an obstruction. The parenchyma surrounding the GB is not hyperechoic.

WEIGHT

70 Pounds

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Gastrointestinal

The gastric wall is within normal limits in thickness and the wall layers are well defined. No obvious abnormalities are observed with its peristalsis.

The small intestinal wall thickness, including the duodenum, is within normal limits and the definition of the wall layers is preserved. Abnormally dilated loops of bowel are not observed.

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

The colonic wall is not thickened and mural detail is considered normal.

There are no obvious signs of a mass, foreign body, infiltrative disease or an obstruction in the gastrointestinal tract.

HOSPITAL NAME

Alpine AH

Pancreas

REFERRING VET

Dr. Sjloin

The pancreas has a mildly coarse echotexture, and is mildly heterogeneous. Pinpoint to punctate hyperechoic foci are scattered throughout the parenchyma. These changes are suggestive of fibrosis, which may be an age-related change, secondary to previous episodes of pancreatitis, mineralization and/or amyloid deposition. Signs of active pancreatitis or neoplasia are not appreciated.

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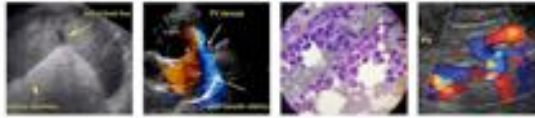
Other

DATE

6/7/22

Lymph nodes

No abnormalities are observed



PATIENT

Casey Hart *Abdominal effusion* is not visualized.

SPECIES

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ULTRASONOGRAPHIC FINDINGS

- **Adrenal glands:** Multiple differential diagnoses could explain the abnormalities of the adrenal glands. Adrenal hyperplasia secondary to chronic illness, stress, and pituitary dependent hyperadrenocorticism are possible. Nodular hyperplasia and other age-related changes also appear to be present. An adenoma may be present on the right gland. Although rare, bilateral adrenal neoplasia can occur, including pheochromocytomas and adenocarcinomas or carcinomas. Adrenal glands may also have different tumours. The phrenico-abdominal vein and surrounding vasculature are unremarkable. Mild inflammation may be present surrounding the caudal pole of the right adrenal.
- **Kidneys:** Bilateral renal changes, suggestive of age related degeneration, however, glomerulonephritis (GN) may also be present. Bilateral pyelectasia is present at 0.5 cm. The latter is slightly more severe than what is expected with polydipsia/polyuria alone, therefore, pyelonephritis must be considered despite the absence of classical sonographic signs.
- **Spleen:** Splenomegaly with preservation of the normal architecture. Differential diagnoses include splenitis. Other differential diagnoses include extramedullary hematopoiesis, hypersplenism and reactive hyperplasia. Neoplasia, such as lymphoma, or other round cell tumour, is considered unlikely. A fine needle aspirate is required to exclude neoplasia definitively.
- **Liver:** Vacuolar and reactive hepatopathies are suspected, in addition to possible cholestasis. Hepatitis, cholangitis/cholangiohepatitis and cholecystitis with a secondary bacterial infection are considered less likely, however, the latter two differential cannot be excluded. There are no obvious signs of neoplasia.
- **Gallbladder:** Gallbladder sludge is usually clinically insignificant. Some dogs may show clinical signs of gastroesophageal reflux disease (GERD), therefore, obtaining a history regarding signs of GERD from the client is suggested. Treatment with an anti-acid, proton pump inhibitor or ursodeoxycholic acid may be required depending on the patient's history. Cholecystitis with a secondary bacterial infection is unlikely, but cannot be excluded.
- **Pancreas:** Age-related changes, secondary to previous episodes of pancreatitis, mineralization, as well as amyloid deposition. Signs of active pancreatitis or neoplasia are not appreciated.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

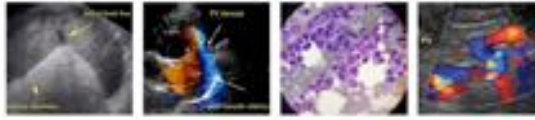
Suggestions/recommendations include

Arterial blood pressure, ideally, with the client

A urine metanephrine test would help exclude pheochromocytomas.

A urine protein: creatinine ratio to exclude proteinuria associated with GN

Clopidogrel may be necessary depending on the UPC results



PATIENT

Casey Hart

Borderline test results for HAC are not uncommon, an ACTH stimulation test could be performed, however, if Casey is demonstrating other signs of HAC, treatment with trilostane (Vetoryl) may be pursued. A low dose is suggested (0.5-0.7 mg/kg PO BID) if therapy is initiated.

SPECIES

Canine

Obtaining a history regarding signs of GERD from the client is suggested. Treatment with an anti-acid, proton pump inhibitor or ursodeoxycholic acid may be required depending on the patient's history.

BREED

Labrador Retriever

A false negative urine culture may occur. If pu/pd persists despite the above, empirical treatment with enrofloxacin is suggested.

SEX

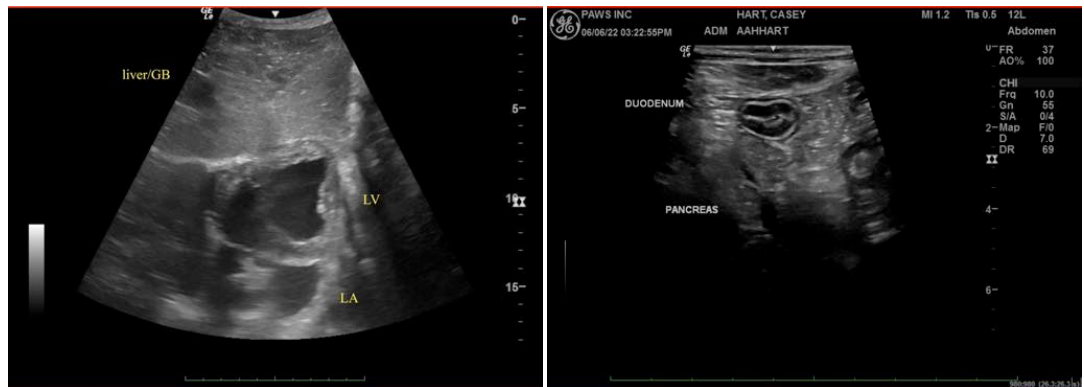
Spayed Female

AGE

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WEIGHT

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HOSPITAL NAME

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REFERRING VET

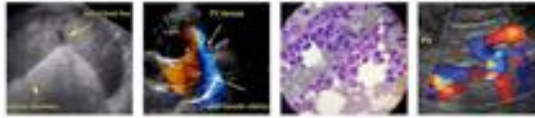
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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