



PATIENT

Ruby Lindenberg

PRESENTING CLINICAL SIGNS

History: Dog presented for inappetence, not vomiting. Had been to ER and was treated for pancreatitis. Dog is diabetic, diagnosed 3 months ago. Difficulty regulating insulin according to owner

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

BREED

Mix

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

SEX

Spayed Female

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for this age patient. Medullary structure differed distinctly from that of the cortex. The right kidney revealed slight pyelectasia. The right kidney measured 6.0 cm.

AGE

13 years

WEIGHT

18.7 lbs

Adrenal Glands

The **adrenal glands** appeared slightly enlarged and swollen. No evidence of focal capsular expansion or invasion into the phrenic veins was noted. No overt suspicion of neoplasia was noted. This is considered likely a hyperplastic change associated with stress or adrenal endocrinopathy (PDH). If isosthenuria is persistently present and the patient morphologically suggests Cushing's disease then ACTH testing would be indicated. The right adrenal gland measured 2.88 x 1.02 cm at the cranial pole and 1.0 cm at the caudal pole. The left adrenal gland was enlarged with a 2.0 x 1.4 cm hyperechoic mass. Generalized left adrenal enlargement was also noted and measured 1.5 cm cranial pole and 1.3 cm at the caudal pole.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Leal

Spleen

The **spleen** was enlarged, hypoechoic with a 1.0 cm nodule at the cranial pole with swollen, irregular contour. The spleen was folded upon itself caudally.

HOSPITAL NAME

Blairstown AH

Liver

The **liver** was swollen with irregular, scalloping contour. The gallbladder presented some dependent debris with essentially normal contour. The cystic and common bile ducts were normal. The hepatic lymph nodes were also mildly enlarged and reactive measuring 2.5 x 1.0 cm in width.

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Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

DATE

6/6/22



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Pancreas

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The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

SPECIES

Canine

BREED

Mix

ULTRASONOGRAPHIC FINDINGS

Splenic nodules and splenomegaly. Splenic differentials include splenitis, round cell neoplasia and hyperplasia.

SEX

Bilateral adrenal hypertrophy of the left adrenal nodule.

Spayed Female

Swollen, irregular liver.

AGE

13 years

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Splenic and hepatic FNA +/- left adrenal FNA would be ideal in this patient. I am concerned for underlying infiltrative disease of the spleen and liver as well as comorbidity of bilateral adrenal enlargement, which is consistent with pituitary dependent hyperadrenocorticism. Both scenarios can be playing a role in diabetic dysregulation. Guarded prognosis.

WEIGHT

18.7 lbs

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Potential Causes of Diabetic Dysregulation

This is a suggestive checkoff list when faced with an unregulated diabetic patient:

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UTI

Dietary indiscretion/intolerance

Pancreatitis

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Hyperthyroidism/hypothyroidism

Exogenous steroids (including topical eye meds)

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Cushing's

Acromegaly

Owner compliance

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Insulin quality issues

Antibodies to insulin

Underlying Neoplasia

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Diffuse liver disease



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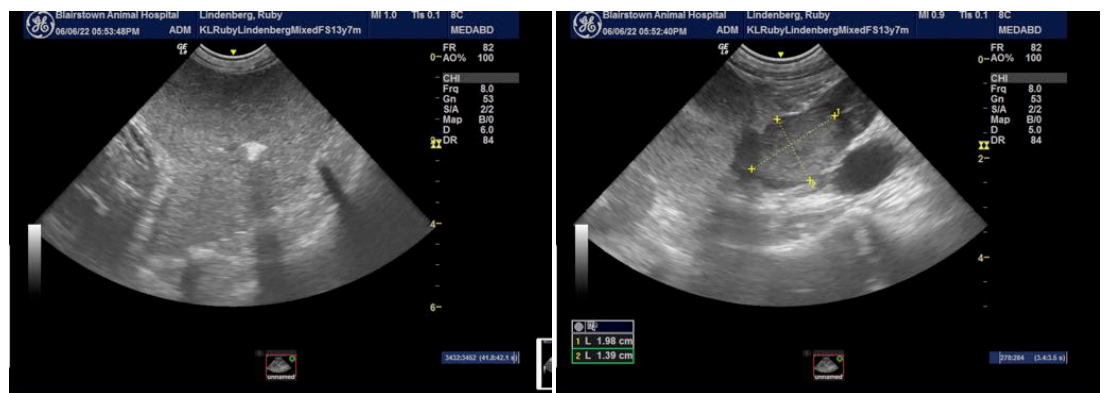
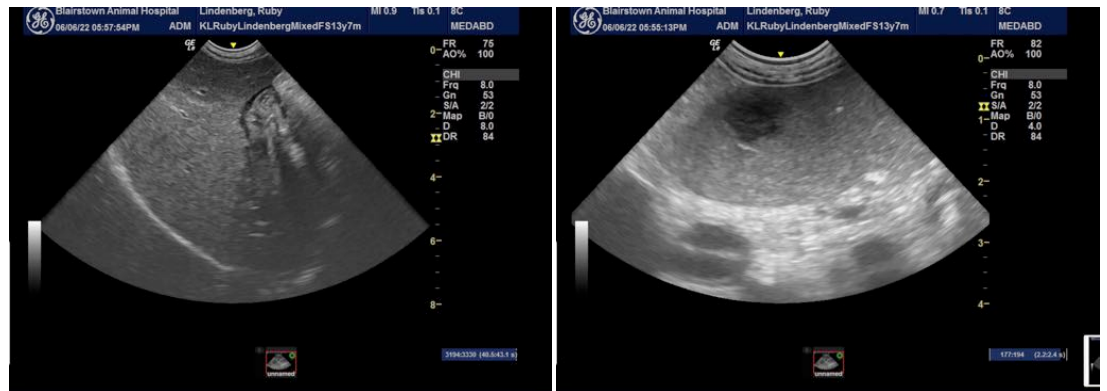
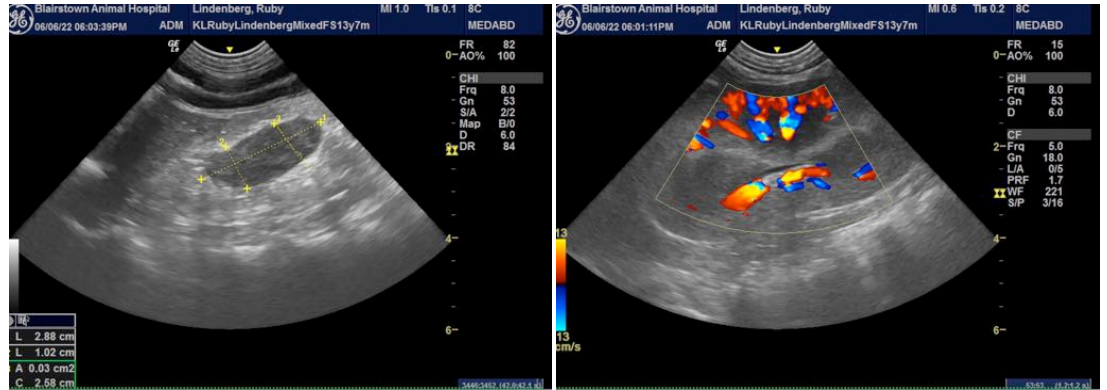
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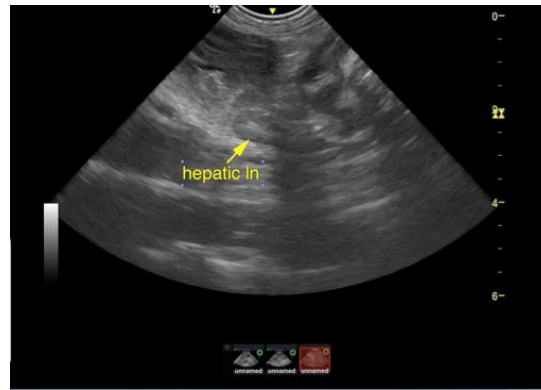
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
info@SonoPath.com