



PATIENT

Chico Himel

SPECIES

Canine

BREED

Terrier X

SEX

Male

AGE

10 Years 3 Months

WEIGHT

19kg

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dallas Reynolds, LVT

HOSPITAL NAME

Lone Mountain AH

REFERRING VET

Dr. Munoz

INVOICE

37511

DATE

5/7/22

PRESENTING CLINICAL SIGNS

Presents as emergency. P has been very lethargic and vomiting for about 2 weeks and not eating. O reports that abdomen appears bloated and patient's eyes are yellow. No travel history outside of Las Vegas. On presentation, mm are icteric.

Abnormal PE/Chem/CBC/UA Results: cbc - WBC 30.54 (6-17), Neu 24 (3-12), HCT 34% chem: ALB 2.0 (2.5-4.4), ALP suppressed, ALT 550 (10-118), TBil 5.8 (0.1-0.6), BUN 77 (7-25), Phos 8.5 (2.9-6.6), Cre 4.3 (0.3-1.4), Glu 617 (60-110), Na 123 (138-160), K 3.8 (3.7-5.8), TP 5.6 (5.4-8.2) Moderate Ketones on urine strip Mild glucosuria on paper strip

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

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 were noted. Ureteral papillae were normal.

The **kidneys** were normal in size and contour; however, a minor hyperechoic ring was noted at the corticomedullary junction. This is consistent with diabetic nephropathy. This is likely from glucosuria. However, assessment for proteinuria is also warranted. This is an idiopathic finding, but an expected finding in diabetic patients. The kidneys measured 6.0 cm each.

Adrenal Glands

The **adrenal glands** were not visualized.

Spleen

The **spleen** presented heterogeneous parenchymal changes and was folded upon itself caudally.

Liver

The **liver** presented diffuse hyperechoic parenchymal changes with attenuating sound beam and hypoechoic nodules. Micro- and macronodular changes present throughout the parenchyma with free fluid, either from inflammation associated with the gallbladder and pancreas, or owing to portal hypertension. The puffy cloud type parenchymal changes noted throughout the left liver and extending medially with regional inflammation did not allow for adequate resolution for definition of the extent of the pathology. However, it did appear to be ominous. The gallbladder was overdistended with echogenic wall thickening and suspended, immobile bile. Regional inflammation noted and areas of free fluid.

Gastrointestinal

Examination of the **gastrointestinal tract** revealed chronic thickening of the submucosal layer with undulating contour and enhanced surrounding mesentery, consistent with chronic inflammatory bowel. No overt loss of detail noted. Gastric stasis noted. Colonic thickening also noted.

Pancreas

The **pancreas** revealed heterogeneous mixed hypoechoic nodular changes and irregular contour. Enhanced surrounding mesentery noted, suggestive for inflammation. The region of the left limb of the pancreas revealed hypoechoic, undifferentiated tissue, suspected to be deriving from the pancreas with surrounding free fluid.



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Free Abdomen

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Global inflammatory response noted throughout the cranial abdomen. Reactive mesentery associated with the liver, pancreas and GI tract.

Canine

ULTRASONOGRAPHIC FINDINGS

BREED

- Extensive abdominal inflammation
- Gastroenteritis
- Hepatic masses
- Inflamed gallbladder mucocele
- Concurrent pancreatitis

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SEX

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Male

There is an extensive amount of pathology in this patient. Abdominal neoplasia deriving from the pancreas and liver is a strong potential. FNA of the undifferentiated tissue lesions as well as liver and abdominocentesis with cytopsin all indicated. Prognosis is guarded to poor. If stabilization is able to be achieved, then cholecystectomy would be necessary. CT evaluation could be considered for potential surgical resection of the liver pathology. However, the margins are ill-defined, and clean surgical resection is unlikely. Given the extent and multifocal patterns of the pathology, humane euthanasia should be considered in this patient.

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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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Dietary indiscretion/intolerance

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Pancreatitis

IMAGING PERFORMED BY

Hyperthyroidism/hypothyroidism

Dallas Reynolds, LVT

Exogenous steroids (including topical eye meds)

Cushing's

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Acromegaly

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Owner compliance

Insulin quality issues

REFERRING VET

Antibodies to insulin

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Underlying Neoplasia

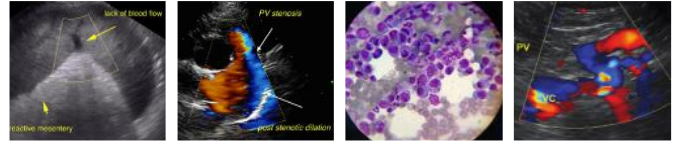
Diffuse liver disease

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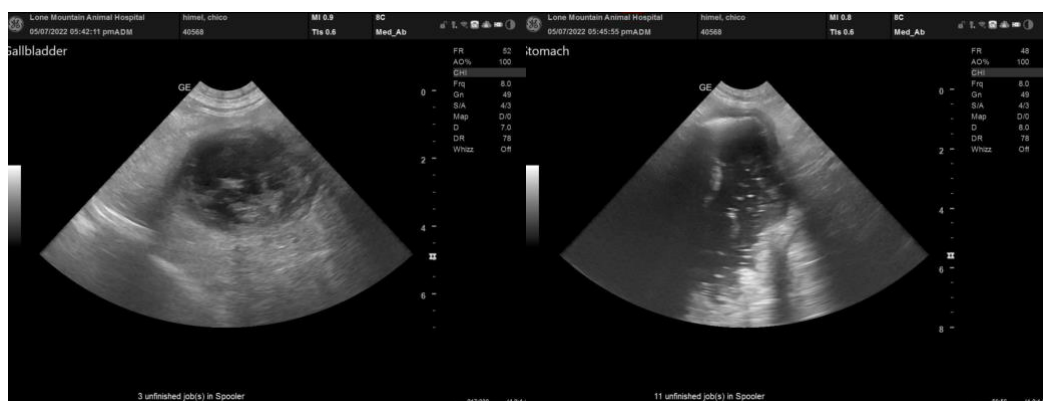
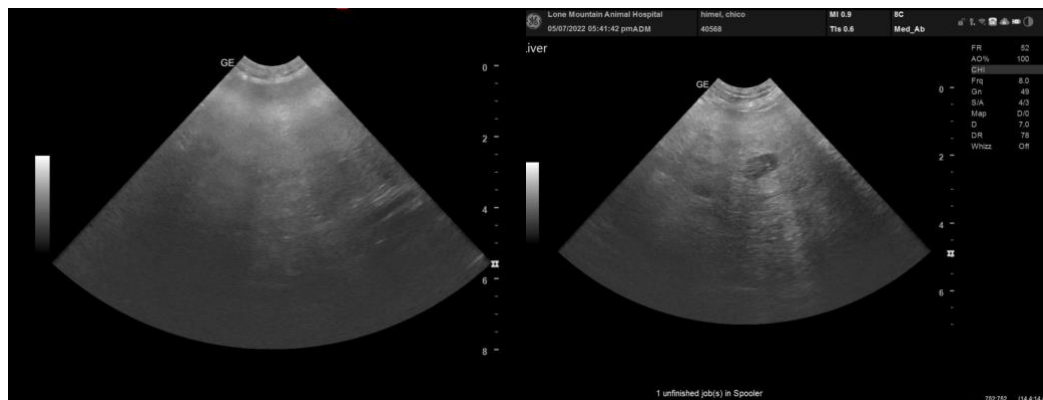
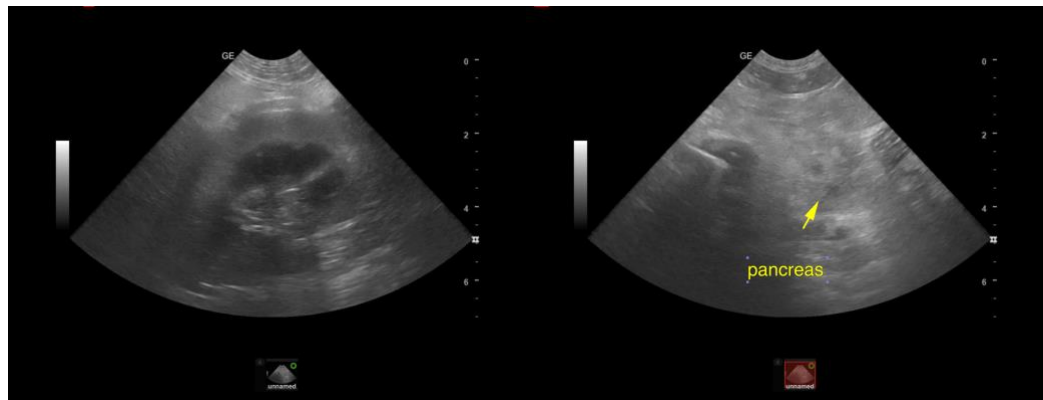
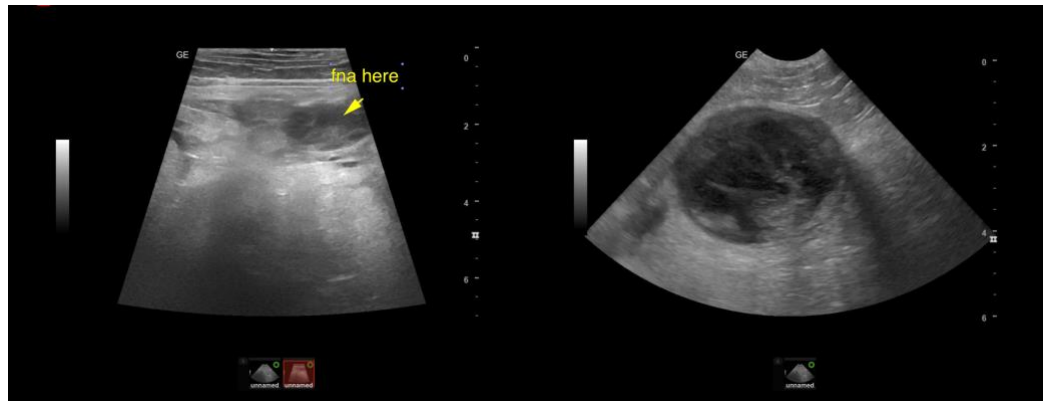
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

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