



PATIENT

Ravi Munoz

SPECIES

Canine

BREED

Miniature Schnauzer

SEX

MN

AGE

8 years, 2 months

WEIGHT

19.3

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

**IMAGING
PERFORMED BY**

Sarah Green

HOSPITAL NAME

Healing Spirit Animal
Wellness

REFERRING VET

Sarah Green

INVOICE

17227

DATE

6/30/23

PRESENTING CLINICAL SIGNS

Recently diagnosed with diabetes mellitus, started on Vetsulin currently at 1.5 U/kg, has been difficult to regulate. Scan performed to evaluate for evidence of pancreatitis or other comorbidity.
Abnormal PE/Chem/CBC/UA Results: ALP=2236 (20-150) U/L, ALT=172 (10-118) U/L, glucose=552 (60-110) mg/dL, HCT=61.7 (27-55)%

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and cystourethral junction exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Mild non-dependent particulate sediment was present without evidence of calculus formation. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.

No overt pathology was noted in the area of the residual prostate.

No evidence of pathology in the area of the aortic trifurcation.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. No evidence of pyelectasia or pyelonephritis was noted. The left kidney measured 5.4 cm in length. The right kidney measured 5.4 cm in length.

Adrenal Glands

The left adrenal gland was indistinctly visualized yet no overt pathology was noted. The left adrenal gland subjectively measured 0.65 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.5 cm width at the caudal pole. No evidence of adrenal tumors was noted.

Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

Liver/ Gallbladder

The liver presented enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non-distended in size containing primarily anechoic content with mild, nonorganized, variably echogenic gallbladder sediment. No evidence of inflammatory gallbladder criteria was noted. The cystic and common bile ducts were normal.



PATIENT	<i>Gastrointestinal</i>
Ravi Munoz	The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material.
SPECIES	
Canine	The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material.
BREED	Normal visible colon wall layers were present with apparent formed feces in lumen.
Minature Schnauzer	<i>Pancreas</i>
SEX	The pancreas base and right pancreatic limb were normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.
MN	
AGE	<i>Free Abdomen</i>
8 years, 2 months	No overt lymphadenopathy or peritoneal effusion was present.
WEIGHT	ULTRASONOGRAPHIC FINDINGS
19.3	<ul style="list-style-type: none"> • Diabetic hepatopathy pattern - benign • Mild gallbladder sediment (non-mucocele) • Mild urinary bladder sediment • Heterogeneous pancreas • Normal bilateral adrenal glands
INTERPRETED BY	<u>INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS</u>
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	Urinalysis, as well as urine C/S given probable glucose urea, is recommended. There was no sonographic evidence of active pancreatitis with the potential for minor pancreatic remodeling or chronic pancreatitis. Correlation with a Spec cPL could be considered. Hepatosupportive medications including Denamarin and Ursodiol may prove beneficial. No evidence of intrabdominal neoplastic criteria was noted.
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Healing Spirit Animal Wellness	
REFERRING VET	This is a suggestive checkoff list when faced with an unregulated diabetic patient:
Sarah Green	UTI
INVOICE	Dietary indiscretion/intolerance
17227	Pancreatitis
DATE	Hyperthyroidism/hypothyroidism
6/30/23	Exogenous steroids (including topical eye meds)
	Cushing's
	Acromegaly
	Owner compliance
	Insulin quality issues
	Antibodies to insulin



PATIENT

Underlying Neoplasia
Diffuse liver disease

Ravi Munoz

SPECIES

For an additional charge, internal medicine consult can be utilized through SonoPath.com. You can select the internal medicine drop down at <http://spa.sonopath.com/>.

Canine

BREED

One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. <https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services>

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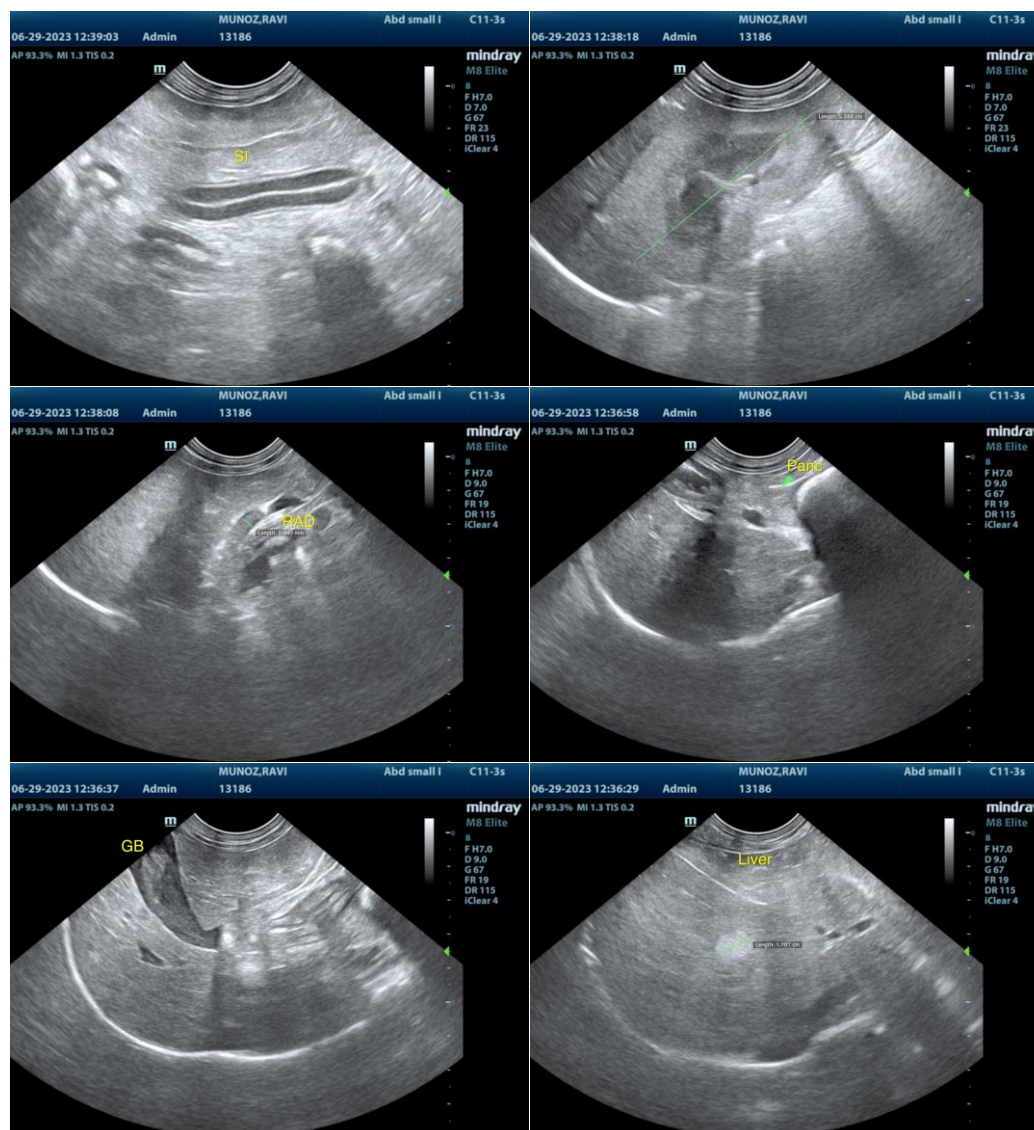
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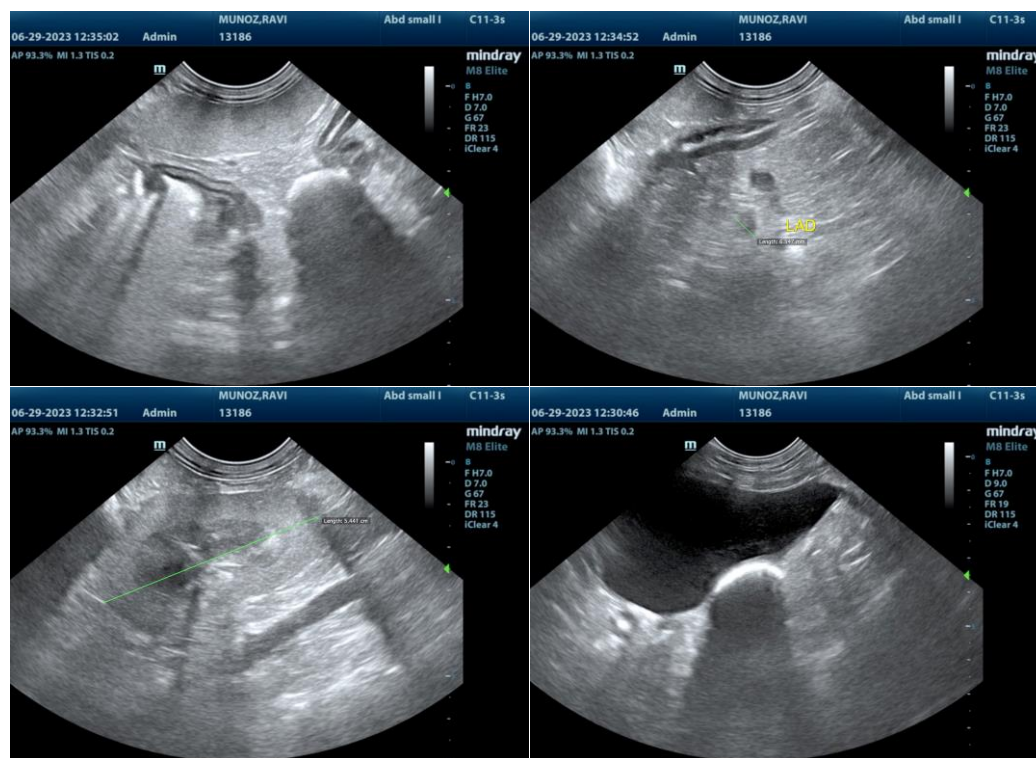
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)
info@sonopath.com