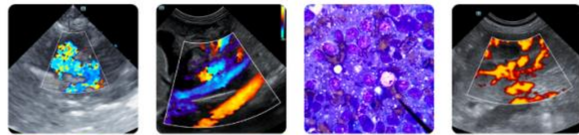

PATIENT

Minnie Moo Sanchez

SPECIES

Canine

BREED

Pug

SEX

Spayed Female

AGE

8 Years

WEIGHT

24.4 pounds

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

IMAGING PERFORMED BY

Dr. Gabriel Ferrer DVM

HOSPITAL NAME

Pulse Pet Ultrasound Services

REFERRING VET

Dr. Lionel Ricci

INVOICE

14642

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03/27/26

PRESENTING CLINICAL SIGNS

- PRESENTED WITH A HISTORY OF VOMITING AND DIARRHEA/ DIAGNOSED WITH DIABETES A FEW MONTHS AGO AND WAS ON
- VETSULIN 3 UNITS SQ BID.
- CBC - INCREASE WBC
- CHEM - SEVERE HYPERGYCEMIA/ HYPOKALEMIA/ HYPONATREMIA/ HYPOCHLOREMIA/ HYPOCALCEMIA/INCREASE ATL/ALKP.
- INCREASE LIPASE
- CPLI - HIGH (POSITIVE)
- STARTED ON IV LRS + KCL SUPPLEMENTATION + VITAMIN B-12 / CERENIA / FAMOTIDINE / AMPICILILN AND METRONIDAZOLE IV.
- PET HAS CONTINUE VOMITING / INCREASE VETSULIN TO 6 UNITS SQ BID

Abnormal PE/Chem/CBC/UA Results: Bloodwork and radiology report attached below for your reference

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with mild dependent lumen mineral. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic change were noted.

The area of the aortic trifurcation was free of pathology.

Normal size and margination was present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. Areas of medullary mineral were present. The left kidney measured 4.9 cm in length. The right kidney measured 5.4 cm in length.

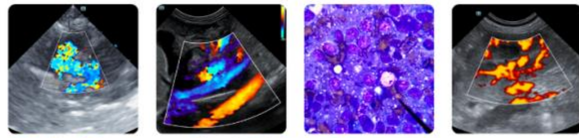
Adrenal Glands

A moderately sized to expansive caudal nodule was present in the left adrenal gland appearing nonhomogenous, hypoechoic and nonmineralized. The nodule did not exhibit signs of mineralization or vascular invasion. The nodule measured 1.8 cm x 1.48 cm. The overall left adrenal gland measured 3.0 cm length x 1.5 cm width at the caudal pole.

A smaller nodule was present in the right adrenal gland without associated symmetrical capsule expansion. The nodule did not exhibit signs of mineralization or vascular invasion. The nodule measured 0.47 cm x 0.46 cm. The right adrenal gland measured 0.50 cm width at the caudal pole.

Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. 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. The



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parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.

Liver & Gallbladder

The liver presented normal in size. The parenchyma of the liver was subjectively increased in echogenicity compared to the spleen and renal cortices. The echotexture of the liver parenchyma was uniform with a mild coarse echotexture. The capsule of the liver was symmetrical in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. Intermittent discrete hypoechoic intraparenchymal nodules were present.

The gallbladder was non distended in size with mild nonorganized biliary sludge. No evidence of wall edema. The common bile duct was not visualized.

Gastrointestinal

The stomach presented overtly normal intact wall. The stomach exhibited moderate distention with retained fluid and nonspecific hyperechoic echoes. No evidence of obstruction to pyloric outflow.

The small intestine presented overall intact wall layering with subjective to thickened duodenum wall. Mild segmental intestinal ileus to the level of the colon.

Normal visible colon wall layers were present with semi formed to soft fecal matter.

Pancreas

The left limb, right limb, and base of the pancreas presented hypoechoic to heterogeneous echogenicity compared to adjacent omental fat. Mild asymmetrical capsule margination was present with mild variable parenchymal swelling and mild peripancreatic reactivity / inflammation.

Free Abdomen

No obvious visualized significant or swollen mesenteric lymphadenopathy was present. Minor primarily perihepatic to peritoneal effusion was present.

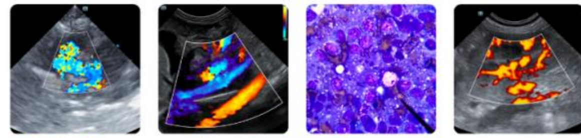
ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Enlarged hyperechoic liver with discrete intraparenchymal nodules.
- Nonorganized gallbladder debris (non-mucocele).
- Pancreatitis.
- Nonspecific gastroenterocolonopathy exhibiting retained fluid and nonspecific hyperechoic gastric echoes.
- Bilateral nodular adrenomegaly- more prominent In the left adrenal gland., possible left adrenal mass.
- Minor perihepatic/peritoneal effusion.

Secondary Findings

- Bilateral renal medullary mineral.
- Mild urinary bladder lumen mineral.



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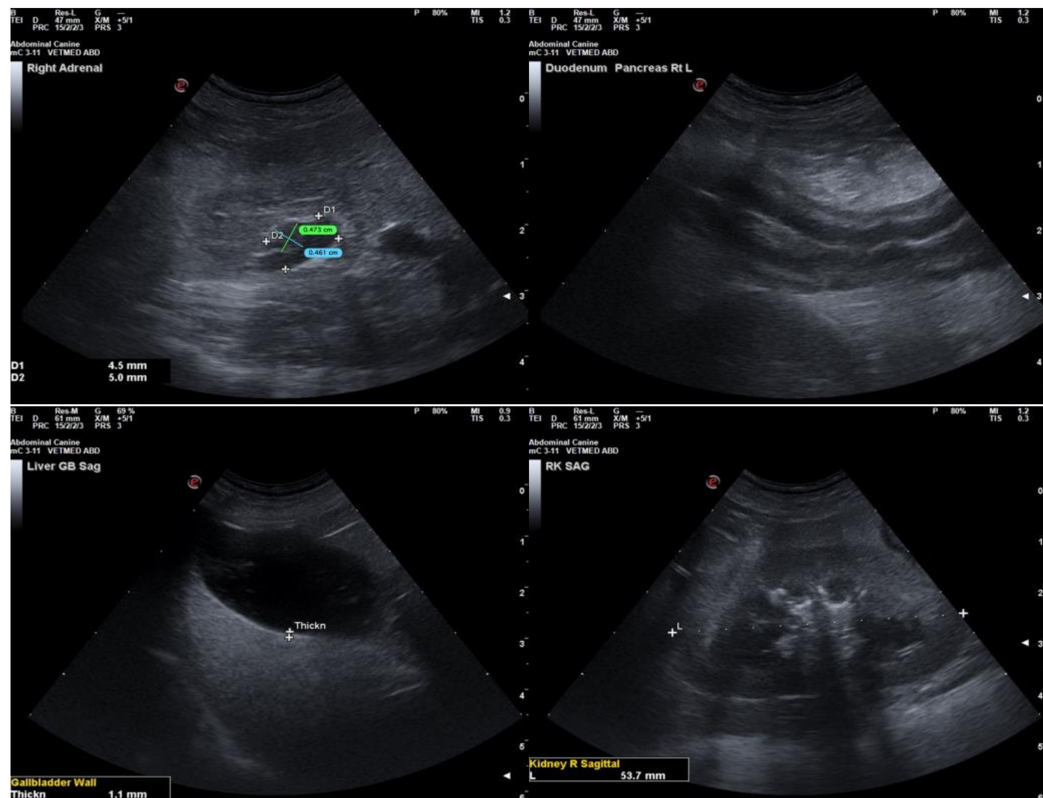
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The hyperechoic gastric echoes are suggestive of non-specific linear-like foreign material although not overtly obstructive. Secondary enteropathy associated with pancreatitis or primary concurrent enteropathy i.e. IBD or other is possible. No overt evidence of intestinal mechanical obstruction. Adrenal workup with ACTH stimulation test given diabetes is recommended if clinical signs are consistent with Cushing's syndrome and diabetic dysregulation. Monitoring of system of blood pressure for hypertension is indicated.

Given multiple comorbidities in this patient, hospitalization with gastrointestinal support, empirical therapy for pancreatitis, document 12-hour fast and sonographic reassessment of the stomach would be reasonable. If available, upper gastrointestinal endoscopy could be considered for further clarification of the gastric content.



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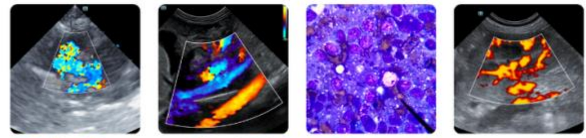

Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath.com info@sonopath.com 1.800.838.4268

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Left Adrenal
D1 29.5 mm
D2 14.8 mm
D3 6.9 mm

Stomach
Stom echos / fluid

Liver Sag Left

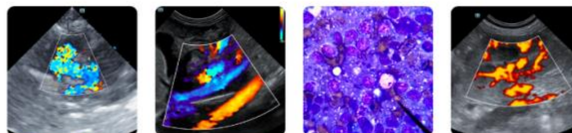
Bladder Trans

Liver Trans LT
D1 8.3 mm
D2 7.5 mm

LK SAG
Kidney L Sagittal
L 49.1 mm

Stomach PANCREAS BODY

Stomach Pylorus



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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