



## PATIENT

Rex Gunderson

## SPECIES

Canine

## BREED

Lab Mix

## SEX

Neutered Male

## AGE

12 Years

## WEIGHT

75 lbs

## INTERPRETED BY

Eric Lindquist, DMV,  
DABVP(CFM), Cert.  
IVUSS

## IMAGING PERFORMED BY

Jill Rumachik

## HOSPITAL NAME

Clarity Imaging LLC

## REFERRING VET

Dr. Eric Howlett

## INVOICE

15699

## DATE

05/01/26

## PRESENTING CLINICAL SIGNS

Presented 4/30/26 for routine wellness visit. PU/PD at home, pot belly appearance. ALP = 648; ALT = 882; remainder of bw unremarkable. USG = 1.007.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The **urinary bladder** was over distended at the time of the sonogram. The trigone, and pelvic urethra to a depth of 1.0 cm 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** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some mild 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 his age patient. Medullary structure differed distinctly from that of the cortex. Slight pyelectasia was noted in the right kidney. The left kidney measured 6.8 cm in length. The right kidney measured 7.1 cm in length. Blood flow to the kidneys appeared to be subnormal in power doppler assessment of the renal cortex.

### Adrenal Glands

The **left adrenal gland** was visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.84 cm width.

The **right adrenal gland** was not visualized, however an irregular rounded tissue adjacent to the cranial medial aspect of the right kidney was noted. Further imaging under sedation is recommended of this area. I'm concerned for possible right adrenal mass. This may be an angular approach to the gallbladder, however I strongly recommend imaging this region further under full sedation.

### Spleen

The **spleen** revealed multifocal hyperechoic lipid plaques with generalized enlargement. The spleen was folded upon itself cranially. No overt masses were noted.

### Liver

The **liver** was uniformly swollen. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia. The gallbladder was over distended with striating bile consistent with overt gallbladder mucocele. Gallbladder sand was present. The gallbladder measured 10.0 cm x 6.8 cm. Polypoid changes were also noted.

### 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



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demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

## Pancreas

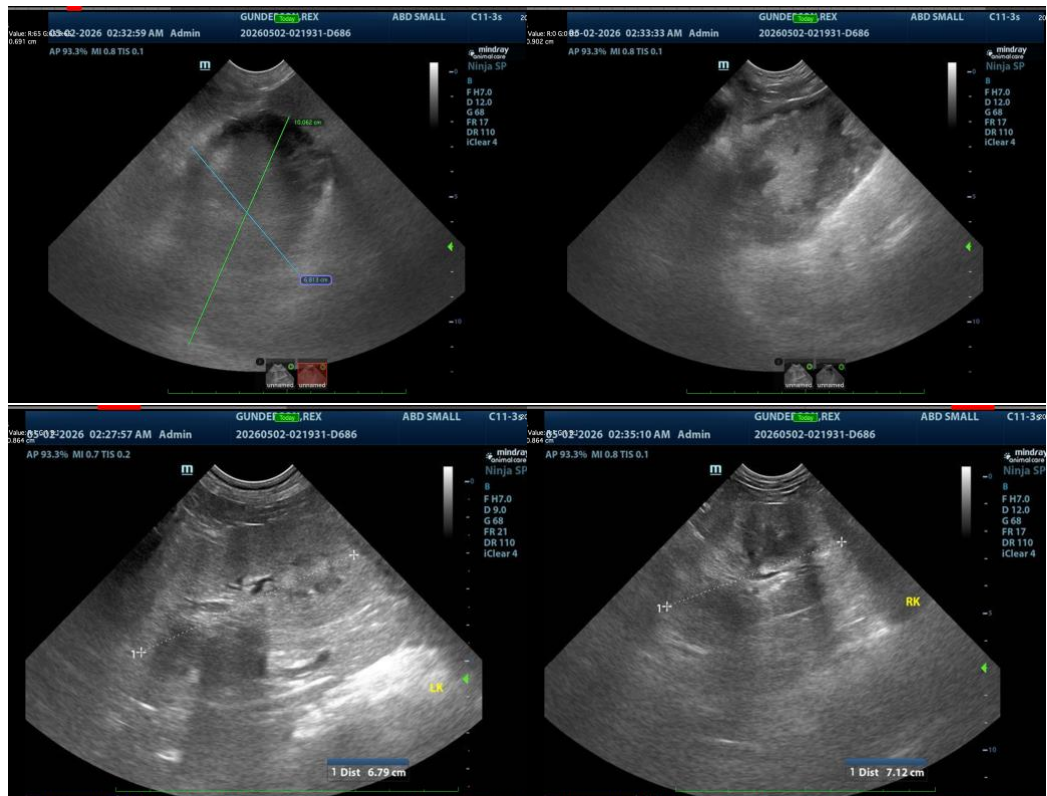
The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

## ULTRASONOGRAPHIC FINDINGS

- Nonspecific splenomegaly with lipogranulomas.
- Gallbladder mucocele.
- Undefined right adrenal area.
- Subjectively benign hepatopathy.
- Age-related abdominal changes otherwise.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Gallbladder motility study could be considered or direct cholecystectomy. Further imaging of the right adrenal area and caudal dorsal right liver is recommended under sedation.





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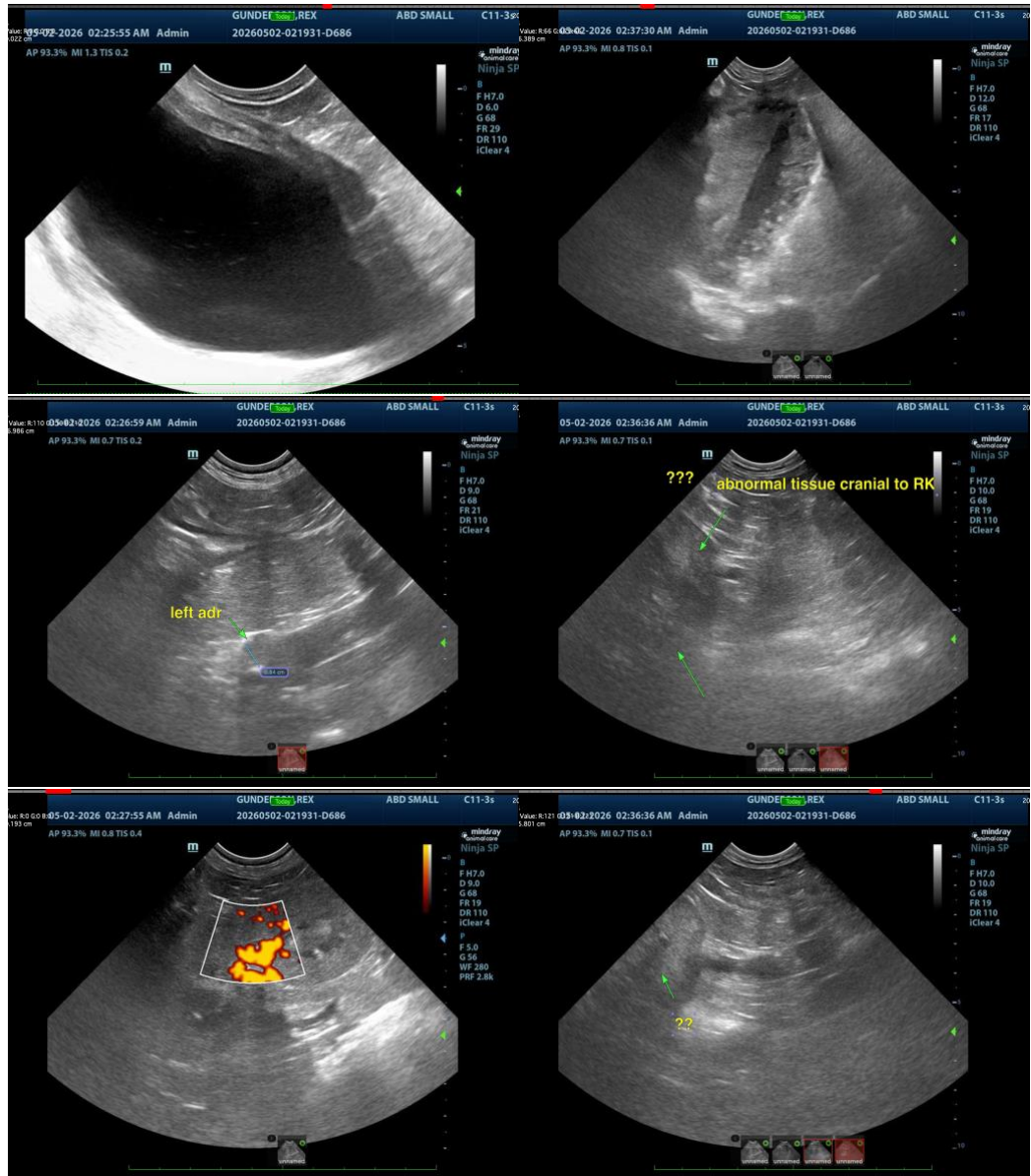
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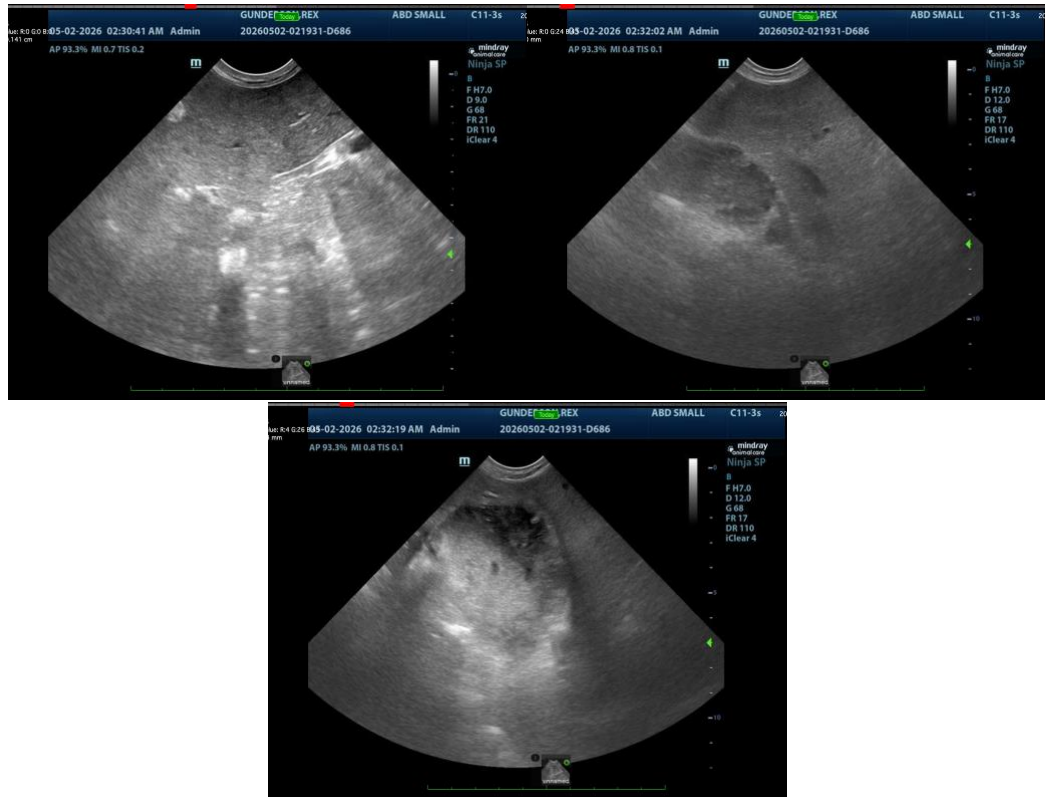
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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(CFM), Cert. IVUSS,**

CEO, Owner, Founder -- SonoPath.com

[info@SonoPath.com](mailto:info@SonoPath.com)

Preparation

- Fast the dog for 12 hours before the test to ensure gallbladder is full.
- Obtain baseline ultrasonographic long axis measurements of gallbladder size in SDEP 11 & SDEP 12 positions. Long axis apex to neck, short axis at widest point.



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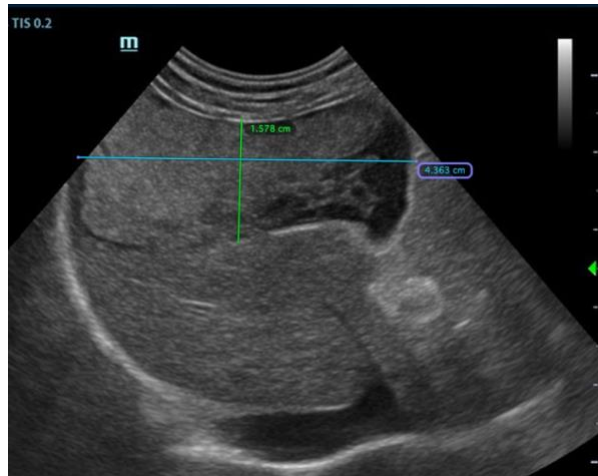
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Meal Administration

- Feed a high-fat test meal A/D diet (Hills) (*High Fat/ High Protein*)

Post-Prandial Imaging

- Perform repeat ultrasound prior to feeding (Time 0) and then at 15 & 30 minutes post-meal.
- Re-measure gallbladder volume and assess for contraction.

No change or enlargement: Possible stasis, dyskinesia, mucocele risk, or obstruction.

SonoPath is currently conducting a study for publication on this subject and contributions of image sets following this protocol are appreciated. [Info@sonopath.com](mailto:Info@sonopath.com) for more information.